



## Outline of *Fungi* and fungus-like taxa

Wijayawardene NN<sup>1</sup>, Hyde KD<sup>2</sup>, Al-Ani LKT<sup>3,4</sup>, Tedersoo L<sup>5</sup>, Haelewaters D<sup>6,7,8,9</sup>, Rajeshkumar KC<sup>10,11</sup>, Zhao RL<sup>12,13</sup>, Aptroot A<sup>14</sup>, Leontyev DV<sup>15</sup>, Saxena RK<sup>16</sup>, Tokarev YS<sup>17</sup>, Dai DQ<sup>1,\*</sup>, Letcher PM<sup>18</sup>, Stephenson SL<sup>19</sup>, Ertz D<sup>20,21</sup>, Lumbsch HT<sup>22</sup>, Kukwa M<sup>23</sup>, Issi IV<sup>17</sup>, Madrid H<sup>24</sup>, Phillips AJL<sup>25</sup>, Selbmann L<sup>26,27</sup>, Pfliegler WP<sup>28</sup>, Horváth E<sup>29</sup>, Bensch K<sup>30</sup>, Kirk PM<sup>31</sup>, Kolaříková K<sup>32</sup>, Raja HA<sup>33</sup>, Radek R<sup>34</sup>, Papp V<sup>35</sup>, Dima V<sup>36</sup>, Ma J<sup>37</sup>, Malosso E<sup>38</sup>, Takamatsu S<sup>39,40</sup>, Rambold G<sup>41</sup>, Gannibal PB<sup>42</sup>, Triebel D<sup>43</sup>, Gautam AK<sup>44</sup>, Avasthi S<sup>45</sup>, Suetrong S<sup>46,47</sup>, Tindal E<sup>48</sup>, Fryar SC<sup>49</sup>, Delgado G<sup>50</sup>, Réblová M<sup>51</sup>, Doilom M<sup>52,71,72,73</sup>, Dolatabadi S<sup>53</sup>, Pawłowska JZ<sup>54</sup>, Humber RA<sup>55</sup>, Kodsueb R<sup>56</sup>, Sánchez-Castro I<sup>57</sup>, Goto BT<sup>58</sup>, Silva DKA<sup>59</sup>, de Souza FA<sup>60</sup>, Oehl F<sup>61</sup>, da Silva GA<sup>62</sup>, Silva IR<sup>62</sup>, Błaszowski J<sup>63</sup>, Jobim K<sup>64</sup>, Maia LC<sup>62</sup>, Barbosa FR<sup>65</sup>, Fiuza PO<sup>66</sup>, Divakar PK<sup>67</sup>, Shenoy BD<sup>68</sup>, Castañeda-Ruiz RF<sup>69</sup>, Somrithipol S<sup>47</sup>, Lateef AA<sup>70</sup>, Karunarathna SC<sup>71,72,73</sup>, Tibpromma S<sup>71,72,73</sup>, Mortimer PE<sup>71,72,73</sup>, Wanasinghe DN<sup>71,72,73</sup>, Phookamsak R<sup>2,71,72,73,74</sup>, Xu J<sup>71,72,73,74</sup>, Wang Y<sup>75</sup>, Tian F<sup>75</sup>, Alvarado P<sup>76</sup>, Li DW<sup>77</sup>, Kušan I<sup>78</sup>, Matočec N<sup>78</sup>, Mešić A<sup>78</sup>, Tkalčec Z<sup>78</sup>, Maharachchikumbura SSN<sup>79</sup>, Papizadeh M<sup>80</sup>, Heredia G<sup>81</sup>, Wartchow F<sup>82</sup>, Bakhshi M<sup>83</sup>, Boehm E<sup>84</sup>, Youssef N<sup>85</sup>, Hustad VP<sup>86</sup>, Lawrey JD<sup>87</sup>, Santiago ALCMA<sup>88</sup>, Bezerra JDP<sup>89</sup>, Souza-Motta CM<sup>89</sup>, Firmino AL<sup>90</sup>, Tian Q<sup>2</sup>, Houbraken J<sup>91</sup>, Hongsanan S<sup>92</sup>, Tanaka K<sup>93</sup>, Dissanayake AJ<sup>79</sup>, Monteiro JS<sup>94</sup>, Grossart HP<sup>95,96</sup>, Suija A<sup>97</sup>, Weerakoon G<sup>98</sup>, Etayo J<sup>99</sup>, Tsurukau A<sup>100,101</sup>, Vázquez V<sup>102,103</sup>, Mungai P<sup>104</sup>, Damm U<sup>105</sup>, Li QR<sup>106</sup>, Zhang H<sup>107</sup>, Boonmee S<sup>2</sup>, Lu YZ<sup>108,109</sup>, Becerra AG<sup>110</sup>, Kendrick B<sup>111</sup>, Brearley FQ<sup>112</sup>, Motiejūnaitė J<sup>113</sup>, Sharma B<sup>11</sup>, Khare R<sup>11</sup>, Gaikwad S<sup>11</sup>, Wijesundara DSA<sup>114</sup>, Tang LZ<sup>1,\*</sup>, He MQ<sup>12,13</sup>, Flakus A<sup>115</sup>, Rodriguez-Flakus P<sup>116</sup>, Zhurbenko MP<sup>117</sup>, McKenzie EHC<sup>118</sup>, Stadler M<sup>119,120</sup>, Bhat DJ<sup>121</sup>, Liu JK<sup>79</sup>, Raza M<sup>12</sup>, Jeewon R<sup>122</sup>, Nassonova ES<sup>123</sup>, Prieto M<sup>124</sup>, Jayalal RGU<sup>125</sup>, Erdoğan M<sup>126</sup>, Yurkov A<sup>127</sup>, Schnittler M<sup>128</sup>, Shchepin ON<sup>129</sup>, Novozhilov YK<sup>129</sup>, Silva-Filho AGS<sup>130</sup>, Gentekaki E<sup>2</sup>, Liu P<sup>131</sup>, Cavender JC<sup>132</sup>, Kang Y<sup>133</sup>, Mohammad S<sup>134</sup>, Zhang LF<sup>135</sup>, Xu RF<sup>135</sup>, Li YM<sup>135</sup>, Dayarathne MC<sup>75</sup>, Ekanayaka AH<sup>2</sup>, Wen TC<sup>136,137</sup>, Deng CY<sup>138</sup>, Pereira OL<sup>139</sup>, Navathe S<sup>140</sup>, Hawksworth DL<sup>141,142</sup>, Fan XL<sup>143</sup>, Dissanayake LS<sup>137</sup>, Kuhnert E<sup>144</sup>, Grossart HP<sup>145,146</sup>, Thines M<sup>147,148</sup>

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## Abstract

This article provides an outline of the classification of the kingdom *Fungi* (including fossil fungi. i.e. dispersed spores, mycelia, sporophores, mycorrhizas). We treat 19 phyla of fungi. These are *Aphelidiomycota*, *Ascomycota*, *Basidiobolomycota*, *Basidiomycota*, *Blastocladiomycota*, *Calcarisporiellomycota*, *Caulochytriomycota*, *Chytridiomycota*, *Entomophthoromycota*, *Entorrhizomycota*, *Glomeromycota*, *Kickxellomycota*, *Monoblepharomycota*, *Mortierellomycota*, *Mucoromycota*, *Neocallimastigomycota*, *Olpidiomycota*, *Rozellomycota* and *Zoopagomycota*. The placement of all fungal genera is provided at the class-, order- and family-level. The described number of species per genus is also given. Notes are provided of taxa for which recent changes or disagreements have been presented. Fungus-like taxa that were traditionally treated as fungi are also incorporated in this outline (i.e. *Eumycetozoa*, *Dictyosteliomycetes*, *Ceratiomyxomycetes* and *Myxomycetes*). Four new taxa are introduced: *Amblyosporida* ord. nov. *Neopereziiida* ord. nov. and *Ovavesiculida* ord. nov. in *Rozellomycota*, and *Protosporangiaceae* fam. nov. in *Dictyosteliomycetes*. Two different classifications (in outline section and in discussion) are provided for *Glomeromycota* and *Leotiomyces* based on recent studies. The phylogenetic reconstruction of a four-gene dataset (18S and 28S rRNA, RPB1, RPB2) of 433 taxa is presented, including all currently described orders of fungi.

**Keywords** – Four new taxa – *Ascomycota* – *Amblyosporida* ord. nov. – Basal clades – *Basidiomycota* – Classification – Emendation – *Microsporidia* – *Neopereziiida* ord. nov. – *Ovavesiculida* ord. nov. – *Protosporangiaceae* fam. nov. – *Redonographaceae* stat nov.

## Introduction

Classification of the kingdom *Fungi* has been updated continuously, with the frequent inclusion of data from DNA sequences in recent studies. Re-collecting historic taxa and neo- or epitypifying them by using both fresh material and cultures is also an increasingly common practice among mycologists, although yet not easily accomplished in some groups. Utilization of environmental sequences for recognizing taxa that are not observed directly and naming them with only a sequence as a holotype is a controversial topic that remains to be addressed (Hongsanan et al. 2018, Lücking & Hawksworth 2018, Lücking et al. 2018, Thines et al. 2018, Zamora et al. 2018).

Tedersoo et al. (2018) proposed a novel classification for the kingdom *Fungi* that was based on phylogenies and the divergence time of particular taxa. Using these criteria, they accepted 18 phyla: *Aphelidiomycota*, *Ascomycota*, *Basidiobolomycota*, *Basidiomycota*, *Blastocladiomycota*, *Calcarisporiellomycota*, *Caulochytriomycota*, *Chytridiomycota*, *Entomophthoromycota*, *Glomeromycota*, *Kickxellomycota*, *Monoblepharomycota*, *Mortierellomycota*, *Mucoromycota*, *Neocallimastigomycota*, *Olpidiomycota*, *Rozellomycota* and *Zoopagomycota*. This study was, however, based on only 111 taxa and it remains to be seen how widely it will be accepted and stand up as more taxa are analyzed. Outlines for the *Ascomycota* (and notes for genera in the *Ascomycota*) and the basal clades of fungi (Wijayawardene et al. 2017, 2018a, b) have been published, with the participation of experts in particular groups. Jaklitsch et al. (2016a) provided a synopsis of accepted *Ascomycota* families with descriptions and lists of included genera (and their synonyms), and Begerow et al. (2018) prepared a parallel treatment for the families of *Basidiomycota* and *Entorrhizomycota*, including brief diagnoses and indications of ecology and distributions for all genera (though without listing synonyms of genera and with some genera that are still debated). A separate outline, with notes and divergence times of *Basidiomycota* was also published by He et al. (2019).

## Classification of basal clades

The higher level classification of basal clades has been subjected to drastic changes as in Tedersoo et al. (2018), who took up *Rozellomycota* to include *Cryptomycota* and *Microsporidia* and also accepted *Aphelidiomycota* in a fungal clade as did Letcher & Powell (2019) in a synopsis

of that group. Moreover, classes and orders of respective phyla were also provided in Tedersoo et al. (2018). Wijayawardene et al. (2018b) provided a detailed classification system (from phyla to genera) for basal clades of *Fungi*, agreeing with Tedersoo et al. (2018). Hence, Wijayawardene et al. (2018b) accepted 16 phyla viz. *Aphelidiomycota*, *Basidiobolomycota*, *Blastocladiomycota*, *Calcarisporiellomycota*, *Caulochytriomycota*, *Chytridiomycota*, *Entomophthoromycota*, *Glomeromycota*, *Kickxellomycota*, *Monoblepharomycota*, *Mortierellomycota*, *Mucoromycota*, *Neocallimastigomycota*, *Olpidiomycota*, *Rozellomycota* and *Zoopagomycota*.

### **Classification of *Glomeromycota***

Classification of *Glomeromycota* (which includes arbuscular mycorrhizal fungi [AMF]) has been a subject of debate. We provide two different classifications (phyla to genera) which are commonly used by taxonomists (see outline and discussion). In the outline section, we provide the classification which is supported by Tedersoo et al. (2018) and our analyses (Fig. 1). The classification provided in Wijayawardene et al. (2018b) is included in the discussion.

### **Placement of the *Rozellomycota* in the tree of life**

The position of *Microsporidia* in the Eukaryotic Tree of Life has been a subject of discussion. Primarily identified as yeast-like fungi in *Schizomycetes* (Nägeli 1857), they were further recognized as protists, while drastic reconsiderations of taxonomy of unicellular eukaryotes resulted in placing to *Sporozoa* (Balbiani 1882), and particularly *Cnidosporidia* (Labbé 1899); *Sarcodina* in *Protozoa* (Cavalier-Smith 1981); *Archezoa* (Cavalier-Smith 1983) and *Protista* (Puytorac et al. 1987); as well as to different classes of *Fungi* (Keeling et al. 2000, Gill & Fast 2006, James et al. 2006, 2013). The mycological community has widely accepted the affiliation of *Microsporidia* with the early diverging clades of *Fungi*. The *Microsporidia*, *Cryptomycota* and *Aphelidea*, have also been considered to represent a monophyletic lineage with shared ecological and structural features, defined as superphylum *Opisthosporidia* belonging to supergroup *Opisthokonta* and separated from *Fungi* (Karpov et al. 2014). In another system, however, it was proposed that *Cryptomycota* (also known as *Rozellida*, *Rozellomycota*, or *Rozellosporidia*) and *Microsporidia* join the phylum *Rozellomycota*, while *Aphelidea* were considered as a separate, though related phylum and all these groups were considered basal lineages of the kingdom *Fungi* (Tedersoo et al. 2018). The taking up of the name *Rozellomycota* in such a broad sense appears premature, especially as the structure and biological features of a larger part of these organisms are unclear as they are known only from environmental sequences. The borders between *Fungi* and *Protista* are therefore unstable and final delimitation of taxa is problematic due to poor coverage of molecular data for the representatives of the most basal groups. However, whatever the conclusion is on placement, it has been decided that the nomenclature of the names in *Microsporidia* will continue to follow the *International Code of Zoological Nomenclature* even if they are treated as fungi (Turland et al. 2018).

### **Classification of *Ascomycota***

Periodic outlines of the *Ascomycota* have been issued since 1982, with notes in the journal *Systema Ascomycetum* which was devoted to this project, and later by Lumbsch & Huhndorf (2010) who accepted three subphyla: *Pezizomycotina* with eleven classes, the *Saccharomycotina* with one class, and *Taphrinomycotina* with four classes. The taxonomy of the phylum has been rapidly updated over the last few years (Hyde et al. 2013, 2017, 2020, Jaklitsch et al. 2016a, Ekanayaka et al. 2017, Hongsanan et al. 2017, Liu et al. 2017).

Recently, two studies were published on the classification of *Leotiomycetes*. These are Ekanayaka et al. (2019) based on a five-locus phylogeny, Johnston et al. (2019) based on genomic-scale and 15-gene phylogenies. We provide two outlines; i) based on Johnston et al.

(2019), Karakehian et al (2019) and Quijada et al. (2020); and ii) based on Ekanayaka et al. (2019). These classifications are placed in the general outline and discussion, respectively.

Moreover, the concept of *One fungus-One name*, which ended the use of different names for morphs of the same fungus in July 2011, has resulted in several name changes in pleomorphic genera. Wijayawardene et al. (2018a) provided an updated outline of *Ascomycota* with three subphyla - *Pezizomycotina* (including the 13 classes *Arthoniomycetes*, *Coniocybomycetes*, *Dothideomycetes*, *Eurotiomycetes*, *Geoglossomycetes*, *Laboulbeniomycetes*, *Lecanoromycetes*, *Leotiomyces*, *Lichinomycetes*, *Orbiliomycetes*, *Pezizomycetes*, *Sordariomycetes*, *Xylonomycetes* and *Xylobotryomycetes*), *Saccharomycotina* (with only class *Saccharomycetes*) and *Taphrinomycotina* (with five classes *Archaeorhizomycetes*, *Neoelectomycetes*, *Pneumocystidomycetes*, *Schizosaccharomycetes* and *Taphrinomycetes*). These taxa along with a summary of other taxonomic ranks are summarized in Table 1.

### **Classification of *Basidiomycota***

*Basidiomycota* constitute a major phylum of the kingdom *Fungi* and is second in numbers of described species, to *Ascomycota* (Wijayawardene et al. 2017, 2018a). Since the last edition of *Ainsworth & Bisby's Dictionary of the Fungi* (Kirk et al. 2008), numerous sequenced-based studies have enabled the introduction of a vast array of new taxa, which has greatly enriched the known diversity of *Basidiomycota*. It has also become clear that several basidiome forms can be found in the same order, family, or even genus (Hibbett et al. 2007). At the same time, related new taxonomic categories have been proposed. For example, in phylogenetic studies of basidiomycetous yeasts, three new classes *Malasseziomycetes*, *Monilielliomycetes*, and *Spiculogloeomycetes*, were introduced and three new orders, 16 new families, and 47 new genera were also introduced (Nasr et al. 2014, Wang et al. 2014a, 2015a, b, Liu et al. 2015, Riess et al. 2016). On the other hand, many new changes have also occurred in the *Agaricomycotina*. Approximately 60 new genera have been recognized for agarics, 40 for boletes, and 50 for bracket fungi (Desjardin et al. 2009, Hjortstam & Ryvarde 2010, Petersen & Hughes 2010, Cui et al. 2011, Vellinga et al. 2011, Vizzini et al. 2011, Hao et al. 2014, Hofstetter et al. 2014, Smith et al. 2015, Castellano et al. 2016, Henkel et al. 2016, Wu et al. 2016, Buyck et al. 2017, Orihara & Smith 2017). Attention has already been drawn to the valuable syntheses of accepted genera, with diagnosis, provided by Begerow et al. (2018).

The phylogeny and divergence time ranges for higher level *Basidiomycota*, with the phylum originating ca. 530 Mya, the subphyla 406–490 Mya, most classes 245–393 Mya and orders 120–290 Mya were inferred by Zhao et al. (2017). The outline includes 1928 genera with 1263 synonyms within *Basidiomycota* (He et al. 2019). The latest version of *Ainsworth & Bisby's Dictionary of the Fungi* (Kirk et al. 2008), contains three subphyla, 16 classes, 52 orders, 177 families, 1589 genera and 31515 species in *Basidiomycota*. The updated outline of *Basidiomycota* has updated the numbers in Kirk et al. (2008) to four subphyla, 18 classes, 68 orders, 241 families, 1928 genera and 41270 species in *Basidiomycota* (He et al. 2019). *Agaricomycotina* embrace most of the species in *Basidiomycota* (30788 species) which includes three classes, 29 orders, 150 families and 1514 genera. *Pucciniomycotina* was estimated to comprise 8653 species including 10 classes, 22 orders, 49 families and 270 genera. *Ustilaginomycetes* with 1185 species is the largest group in *Ustilaginomycotina*. *Malasseziomycetes* and *Moniliellomycetes*, are the only two new classes recognized in the *Basidiomycota* since 2008, include 32 estimated species. *Wallemiomycotina* is a recently recognized subphylum (Zhao et al. 2017) with 12 species estimated in a single class, two orders and two families. Another early diverging group in the *Agaricomycotina* has recently identified by a phylogenomic study, the *Bartheletiomycetes*, including just a single species associated with *Ginkgo biloba* as a 'living fossil' (Mishra et al. 2018). Accepted taxa of *Basidiomycota* are summarized in Table 1.



**Table 1** Phyla, classes, orders and families of kingdom *Fungi*. The number of accepted genera in each family is indicated in brackets after the family name.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
<i>Aphelidiomycota</i>	<i>Aphelidiomycetes</i>	<i>Aphelidiales</i>	<i>Aphelidiaceae</i> (4)
<i>Ascomycota</i>	<i>Archaeorhizomycetes</i>	<i>Archaeorhizomycetales</i>	<i>Archaeorhizomycetaceae</i> (1)
		<i>Arthoniomycetes</i>	<i>Arthoniales</i>
			<i>Andreiomycetaceae</i> (1)
			<i>Arthoniaceae</i> (23)
			<i>Chrysotrichaceae</i> (3)
			<i>Lecanographaceae</i> (7)
			<i>Opegraphaceae</i> (15)
			<i>Roccellaceae</i> (41)
			<i>Roccellographaceae</i> (3)
			<i>Arthoniales</i> genera <i>incertae sedis</i> (23)
			<i>Lichenostigmatales</i>
			<i>Phaeococcomycetaceae</i> (3)
		<i>Candelariomycetes</i>	<i>Candelariales</i>
			<i>Candelariaceae</i> (4)
			<i>Pycnoraceae</i> (1)
		<i>Coniocybomycetes</i>	<i>Coniocybales</i>
			<i>Coniocybaceae</i> (2)
	<i>Dothideomycetes</i>	<i>Abrothallales</i>	
		<i>Abrothallaceae</i> (2)	
		<i>Acrospermales</i>	
		<i>Acrospermaceae</i> (3)	
		<i>Acrospermales</i> genus <i>incertae sedis</i> (1)	
		<i>Asterinales</i>	
		<i>Asterinaceae</i> (19)	
		<i>Asterotexaceae</i> (1)	
		<i>Hemigraphaceae</i> (1)	
		<i>Lembosiaceae</i> (1)	
		<i>Melaspilellaceae</i> (1)	
		<i>Neobueliellaceae</i> (1)	
		<i>Stictographaceae</i> (5)	
		<i>Asterinales</i> genera <i>incertae sedis</i> (8)	
		<i>Botryosphaerales</i>	
		<i>Aplosporellaceae</i> (2)	
		<i>Botryosphaeriaceae</i> (22)	
		<i>Melanopsaceae</i> (1)	
		<i>Phyllostictaceae</i> (2)	
		<i>Planistromellaceae</i> (4)	
		<i>Saccharataceae</i> (4)	
		<i>Botryosphaerales</i> genera <i>incertae sedis</i> (8)	
		<i>Capnodiales</i>	
		<i>Aeminiaceae</i> (1)	
		<i>Antennulariellaceae</i> (4)	
		<i>Capnodiaceae</i> (9)	
		<i>Cladosporiaceae</i> (8)	
		<i>Cystocoleaceae</i> (1)	
		<i>Dissoconiaceae</i> (5)	
		<i>Euantennariaceae</i> (7)	
		<i>Extremaceae</i> (8)	
		<i>Johansoniaceae</i> (2)	
		<i>Metacapnodiaceae</i> (3)	
		<i>Mycosphaerellaceae</i> (111)	
		<i>Neodevriesiaceae</i> (2)	
		<i>Phaeothecaceae</i> (1)	
		<i>Phaeothecoidiellaceae</i> (8)	
		<i>Piedraiaceae</i> (1)	
		<i>Racodiaceae</i> (1)	
		<i>Schizothyriaceae</i> (10)	

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Teratosphaeriaceae</i> (60)
			<i>Xenodevriesiaceae</i> (1)
		<i>Capnodiales</i> genera <i>incertae sedis</i> (14)	
		<i>Catinellales</i>	<i>Catinellaceae</i> (1)
		<i>Cladoriellales</i>	<i>Cladoriellaceae</i> (1)
		<i>Collemopsidiales</i>	<i>Xanthopyreniaceae</i> (6)
		<i>Dothideales</i>	<i>Dothideaceae</i> (13)
			<i>Neocelosporiaceae</i> (3)
			<i>Saccotheciaceae</i> (7)
			<i>Zalariaceae</i> (1)
		<i>Dothideales</i> genera <i>incertae sedis</i> (6)	
		<i>Dyfoliomycetales</i>	<i>Pleurotremataceae</i> (3)
		<i>Eremithallales</i>	<i>Melaspileaceae</i> (2)
		<i>Eremomycetales</i>	<i>Eremomycetaceae</i> (2)
		<i>Eremomycetales</i> genus <i>incertae sedis</i> (1)	
		<i>Gloniales</i>	<i>Gloniaceae</i> (3)
		<i>Hysteriales</i>	<i>Hysteriaceae</i> (13)
		<i>Hysteriales</i> genus <i>incertae sedis</i> (1)	
		<i>Jahnulales</i>	<i>Aliquandostipitaceae</i> (7)
			<i>Manglicolaceae</i> (1)
		<i>Kirschsteiniotheliales</i>	<i>Kirschsteiniotheliaceae</i> (1)
		<i>Kirschsteiniotheliales</i> genera <i>incertae sedis</i> (2)	
		<i>Lembosinales</i>	<i>Lembosinaceae</i> (1)
		<i>Lichenotheliales</i>	<i>Lichenotheliaceae</i> (2)
		<i>Microthyriales</i>	<i>Microthyriaceae</i> (11)
		<i>Microthyriales</i> genera <i>incertae sedis</i> (6)	
		<i>Minutisphaerales</i>	<i>Acrogenosporaceae</i> (1)
			<i>Minutisphaeraceae</i> (1)
		<i>Monoblastiales</i>	<i>Monoblastiaceae</i> (6)
		<i>Murramarangomycetales</i>	<i>Murramarangomycetaceae</i> (1)
		<i>Muyocopronales</i>	<i>Muyocopronaceae</i> (9)
		<i>Myriangiales</i>	<i>Elsinoaceae</i> (2)
			<i>Myriangiaceae</i> (11)
		<i>Myriangiales</i> genus <i>incertae sedis</i> (1)	
		<i>Mytilinidiales</i>	<i>Mytilinidiaceae</i> (9)
		<i>Natipusillales</i>	<i>Natipusillaceae</i> (1)
		<i>Parmulariales</i>	<i>Parmulariaceae</i> (35)
		<i>Patellariales</i>	<i>Patellariaceae</i> (21)
		<i>Phaeotrichales</i>	<i>Phaeotrichaceae</i> (3)
		<i>Pleosporales</i>	<i>Acrocalymmaceae</i> (1)
			<i>Aigialaceae</i> (6)
			<i>Amniculicolaceae</i> (6)
			<i>Amorosiaceae</i> (4)
			<i>Anteaglioniaceae</i> (2)
			<i>Aquasubmersaceae</i> (1)
			<i>Arthopyreniaceae</i> (2)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Ascocylindricaceae</i> (1)
			<i>Astrosphaeriellaceae</i> (7)
			<i>Bambusicolaceae</i> (3)
			<i>Biatriosporaceae</i> (1)
			<i>Camarosporiaceae</i> (2)
			<i>Camarosporidiellaceae</i> (1)
			<i>Caryosporaceae</i> (1)
			<i>Coniothyriaceae</i> (5)
			<i>Corynesporascaceae</i> (2)
			<i>Cryptocoryneaceae</i> (1)
			<i>Cucurbitariaceae</i> (13)
			<i>Cyclothyriellaceae</i> (2)
			<i>Dacampiaceae</i> (6)
			<i>Delitschiaceae</i> (3)
			<i>Diademaceae</i> (2)
			<i>Dictyosporiaceae</i> (15)
			<i>Didymellaceae</i> (33)
			<i>Didymosphaeriaceae</i> (32)
			<i>Dothidotthiaceae</i> (7)
			<i>Fuscostagonosporaceae</i> (1)
			<i>Fusculinaceae</i> (2)
			<i>Halojulellaceae</i> (1)
			<i>Halotthiaceae</i> (6)
			<i>Hermatomycetaceae</i> (1)
			<i>Hypsostromataceae</i> (1)
			<i>Latoruaceae</i> (4)
			<i>Lentimurisoraceae</i> (2)
			<i>Lentitheciaceae</i> (13)
			<i>Leptosphaeriaceae</i> (13)
			<i>Libertasomycetaceae</i> (2)
			<i>Ligninsphaeriaceae</i> (2)
			<i>Lindgomycetaceae</i> (7)
			<i>Lizoniaceae</i> (1)
			<i>Longipedicellataceae</i> (3)
			<i>Longiostiolaceae</i> (1)
			<i>Lophiostomataceae</i> (28)
			<i>Lophiotremataceae</i> (7)
			<i>Macrodiplodiopsidaceae</i> (2)
			<i>Massariaceae</i> (3)
			<i>Massarinaceae</i> (8)
			<i>Melanommataceae</i> (35)
			<i>Morosphaeriaceae</i> (6)
			<i>Mycoporaceae</i> (1)
			<i>Neocamarosporiaceae</i> (2)
			<i>Neohendersoniaceae</i> (5)
			<i>Neomassariaceae</i> (1)
			<i>Neomassarinaeae</i> (2)
			<i>Neophaeosphaeriaceae</i> (1)
			<i>Neopyrenochaetaceae</i> (1)
			<i>Nigrogranaceae</i> (1)
			<i>Occultibambusaceae</i> (5)
			<i>Ohleriaceae</i> (1)
			<i>Parabambusicolaceae</i> (9)
			<i>Paradictyoarthriniaceae</i> (2)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Paralophiostomataceae</i> (1)
			<i>Parapyrenochaetaceae</i> (2)
			<i>Periconiaceae</i> (4)
			<i>Phaeoseptaceae</i> (2)
			<i>Phaeosphaeriaceae</i> (82)
			<i>Pleomassariaceae</i> (7)
			<i>Pleomonodictydaceae</i> (2)
			<i>Pleosporaceae</i> (23)
			<i>Pseudoastrosphaeriellaceae</i> (3)
			<i>Pseudoberkleasmiaceae</i> (1)
			<i>Pseudocoleodictyosporaceae</i> (2)
			<i>Pseudolophiotremataceae</i> (2)
			<i>Pseudomassariniaceae</i> (1)
			<i>Pseudopyrenochaetaceae</i> (1)
			<i>Pyrenochaetopsidaceae</i> (3)
			<i>Roussoellaceae</i> (12)
			<i>Salsugineaceae</i> (2)
			<i>Shiraiaceae</i> (3)
			<i>Sporormiaceae</i> (9)
			<i>Striatiguttulaceae</i> (2)
			<i>Sulcatisporaceae</i> (6)
			<i>Teichosporaceae</i> (13)
			<i>Testudinaceae</i> (9)
			<i>Tetraplosphaeriaceae</i> (8)
			<i>Thyridariaceae</i> (7)
			<i>Torulaceae</i> (6)
			<i>Trematosphaeriaceae</i> (6)
			<i>Tzeananiaceae</i> (1)
			<i>Wicklowiaceae</i> (1)
			<i>Zopfiaceae</i> (6)
		<i>Pleosporales</i> genera <i>incertae sedis</i> (48)	
		<i>Stigmatodiscales</i>	<i>Stigmatodiscaceae</i> (1)
		<i>Strigulales</i>	<i>Strigulaceae</i> (13)
			<i>Tenuitholiascaceae</i> (1)
		<i>Superstratomyces</i>	<i>Superstratomycetaceae</i> (1)
		<i>Trypetheliales</i>	<i>Polycoccaceae</i> (2)
			<i>Trypetheliaceae</i> (19)
		<i>Tubeufiales</i>	<i>Bezerromycetaceae</i> (3)
			<i>Tubeufiaceae</i> (46)
			<i>Wiesneriomycetaceae</i> (6)
		<i>Valsariales</i>	<i>Valsariaceae</i> (3)
		<i>Venturiales</i>	<i>Sympoventuriaceae</i> (9)
			<i>Venturiaceae</i> (14)
		<i>Venturiales</i> genera <i>incertae sedis</i> (3)	
		<i>Zeloasperisporiales</i>	<i>Zeloasperisporiaceae</i> (1)
		<i>Incertae sedis*</i>	<i>Alinaceae</i> (1)
			<i>Argynnaceae</i> (2)
			<i>Ascoporiaceae</i> (1)
			<i>Aulographaceae</i> (4)
			<i>Balladynaceae</i> (3)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Cleistosphaeraceae</i> (1)
			<i>Coccoideaceae</i> (3)
			<i>Cookellaceae</i> (2)
			<i>Dimeriaceae</i> (1)
			<i>Dubujianaceae</i> (1)
			<i>Dysrhynchisceae</i> (1)
			<i>Endosporiaceae</i> (1)
			<i>Englerulaceae</i> (8)
			<i>Eremomycetaceae</i> (3)
			<i>Eriomycetaceae</i> (5)
			<i>Homortomycetaceae</i> (1)
			<i>Hyalomeliolinaceae</i> (1)
			<i>Leptopeltidaceae</i> (4)
			<i>Macrovalsariaceae</i> (1)
			<i>Meliolinaceae</i> (2)
			<i>Mesnieraceae</i> (3)
			<i>Naetrocymbaceae</i> (5)
			<i>Nematotheciaceae</i> (3)
			<i>Neoparodiaceae</i> (1)
			<i>Palawaniaceae</i> (1)
			<i>Paranectriellaceae</i> (2)
			<i>Parodiellaceae</i> (1)
			<i>Perisporiopsidaceae</i> (5)
			<i>Phaeodimeriellaceae</i> (1)
			<i>Pododimeriaceae</i> (2)
			<i>Polyclypeolinaceae</i> (1)
			<i>Polystomellaceae</i> (4)
			<i>Protoscyphaceae</i> (1)
			<i>Pseudoperisporiaceae</i> (4)
			<i>Pseudorobillardaceae</i> (1)
			<i>Pyrenidiaceae</i> (1)
			<i>Seynesiopeltidaceae</i> (1)
			<i>Stomatogeneaceae</i> (1)
			<i>Thyrinulaceae</i> (3)
			<i>Toroaceae</i> (1)
			<i>Trichopeltinaceae</i> (7)
			<i>Trichothyriaceae</i> (4)
			<i>Vizellaceae</i> (3)
	<i>Dothideomycetes</i> genera <i>incertae sedis</i> (278)		
	<i>Eurotiomycetes</i>	<i>Arachnomycetales</i>	<i>Arachnomycetaceae</i> (2)
		<i>Chaetothyriales</i>	<i>Chaetothyriaceae</i> (20)
			<i>Coccodiniaceae</i> (3)
			<i>Cyphellophoraceae</i> (2)
			<i>Epibryaceae</i> (1)
			<i>Herpotrichiellaceae</i> (16)
			<i>Lyrommataceae</i> (1)
			<i>Microtheliopsidaceae</i> (1)
			<i>Paracladophialophoraceae</i> (1)
			<i>Pyrenotrichaceae</i> (2)
			<i>Trichomeriaceae</i> (8)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
		<i>Chaetothyriales</i> genera <i>incertae sedis</i> (10)	
		<i>Coryneliales</i>	<i>Coryneliaceae</i> (7)
			<i>Eremascaceae</i> (1)
		<i>Eurotiales</i>	<i>Aspergillaceae</i> (15)
			<i>Elaphomycetaceae</i> (2)
			<i>Thermoascaceae</i> (2)
			<i>Trichocomaceae</i> (7)
		<i>Mycocaliciales</i>	<i>Mycocaliciaceae</i> (7)
		<i>Onygenales</i>	<i>Ajellomycetaceae</i> (6)
			<i>Arthrodermataceae</i> (10)
			<i>Ascospaeraceae</i> (3)
			<i>Gymnoascaceae</i> (10)
			<i>Nannizziopsidaceae</i> (1)
			<i>Onygenaceae</i> (31)
			<i>Spiromastigaceae</i> (4)
		<i>Onygenales</i> genera <i>incertae sedis</i> (3)	
		<i>Phaeomoniellales</i>	<i>Celotheliaceae</i> (10)
		<i>Pyrenulales</i>	<i>Pyrenulaceae</i> (12)
		<i>Pyrenulales</i> genera <i>incertae sedis</i> (2)	
		<i>Sclerococcales</i>	<i>Dactylosporaceae</i> (5)
		<i>Verrucariales</i>	<i>Adelococcaceae</i> (3)
			<i>Sarcopyreniaceae</i> (1)
			<i>Verrucariaceae</i> (52)
		<i>Verrucariales</i> genera <i>incertae sedis</i> (5)	
		<i>Incertae sedis</i>	<i>Rhynchostomataceae</i> (2)
	<i>Eurotiomycetes</i> genus <i>incertae sedis</i> (1)		
	<i>Geoglossomycetes</i>	<i>Geoglossales</i>	<i>Geoglossaceae</i> (7)
	<i>Geoglossomycetes</i> genera <i>incertae</i> <i>sedis</i> (2)		
	<i>Laboulbeniomycetes</i>	<i>Herpomycetales</i>	<i>Herpomycetaceae</i> (1)
		<i>Laboulbeniales</i>	<i>Ceratomycetaceae</i> (12)
			<i>Euceratomycetaceae</i> (5)
			<i>Laboulbeniaceae</i> (125)
			<i>Teratomycetaceae</i> (1)
		<i>Laboulbeniales</i> genera <i>incertae sedis</i> (3)	
		<i>Pyxidiophorales</i>	<i>Pyxidiophoraceae</i> (3)
	<i>Laboulbeniomycetes</i> genus <i>incertae sedis</i> (1)		
	<i>Lecanoromycetes</i>	<i>Acarosporales</i>	<i>Acarosporaceae</i> (11)
			<i>Eigleraceae</i> (1)
		<i>Baeomycetales</i>	<i>Arctomiaceae</i> (4)
			<i>Arthrorhaphidaceae</i> (1)
			<i>Baeomycetaceae</i> (5)
			<i>Cameroniaceae</i> (1)
			<i>Hymeneliaceae</i> (3)
			<i>Protothelenellaceae</i> (3)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Trapeliaceae</i> (12)
			<i>Xylographaceae</i> (4)
		<i>Caliciales</i>	<i>Caliciaceae</i> (36)
			<i>Physciaceae</i> (18)
		<i>Graphidales</i>	<i>Diploschistaceae</i> (35)
			<i>Fissurinaceae</i> (6)
			<i>Gomphillaceae</i> (26)
			<i>Graphidaceae</i> (31)
			<i>Redonographaceae</i> (2)
			<i>Thelotremataceae</i> (7)
		<i>Gyalectales</i>	<i>Coenogoniaceae</i> (1)
			<i>Gyalectaceae</i> (3)
			<i>Phlyctidaceae</i> (2)
			<i>Sagiolechiaceae</i> (2)
			<i>Trichotheliaceae</i> (7)
		<i>Lecanorales</i>	<i>Bruceomycetaceae</i> (2)
			<i>Catillariaceae</i> (5)
			<i>Cladoniaceae</i> (22)
			<i>Gypsoplacaceae</i> (1)
			<i>Haematommataceae</i> (1)
			<i>Lecanoraceae</i> (28)
			<i>Malmideaceae</i> (7)
			<i>Megalariaceae</i> (2)
			<i>Parmeliaceae</i> (71)
			<i>Pilocarpaceae</i> (32)
			<i>Psilolechiaceae</i> (1)
			<i>Psoraceae</i> (6)
			<i>Ramalinaceae</i> (37)
			<i>Ramboldiaceae</i> (1)
			<i>Scoliciosporaceae</i> (1)
			<i>Sphaerophoraceae</i> (6)
			<i>Tephromelataceae</i> (4)
		<i>Lecanorales</i> genera <i>incertae sedis</i> (14)	
		<i>Lecideales</i>	<i>Lecideaceae</i> (29)
			<i>Lopadiaceae</i> (1)
		<i>Leprocaulales</i>	<i>Leprocaulaceae</i> (3)
		<i>Micropeltidales</i>	<i>Micropeltidaceae</i> (12)
		<i>Ostropales</i>	<i>Odontotremataceae</i> (10)
			<i>Phaneromycetaceae</i> (1)
			<i>Spirographaceae</i> (1)
			<i>Stictidaceae</i> (28)
		<i>Ostropales</i> genera <i>incertae sedis</i> (6)	
		<i>Peltigerales</i>	<i>Coccocarpiaceae</i> (3)
			<i>Collemataceae</i> (8)
			<i>Koerberiaceae</i> (3)
			<i>Massalongiaceae</i> (3)
			<i>Pannariaceae</i> (27)
			<i>Peltigeraceae</i> (15)
			<i>Placynthiaceae</i> (3)
			<i>Vahliellaceae</i> (1)
		<i>Pertusariales</i>	<i>Agyriaceae</i> (2)
			<i>Coccotremataceae</i> (3)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Icmadophilaceae</i> (7)
			<i>Megasporaceae</i> (6)
			<i>Microcaliciaceae</i> (1)
			<i>Ochrolechiaceae</i> (1)
			<i>Pertusariaceae</i> (3)
			<i>Varicellariaceae</i> (1)
			<i>Variolariaceae</i> (1)
		<i>Rhizocarpales</i>	<i>Rhizocarpaceae</i> (4)
		<i>Sarrameanales</i>	<i>Sarrameanaceae</i> (2)
		<i>Schaereriales</i>	<i>Schaereriaceae</i> (1)
		<i>Sporastatales</i>	<i>Sporastatiaceae</i> (2)
		<i>Teloschistales</i>	<i>Brigantiaeeaceae</i> (2)
			<i>Megalosporaceae</i> (3)
			<i>Teloschistaceae</i> (63)
		<i>Teloschistales</i> genus <i>incertae sedis</i> (1)	
		<i>Thelenellales</i>	<i>Thelenellaceae</i> (3)
		<i>Turquoiseomycetales</i>	<i>Turquoiseomycetaceae</i> (1)
		<i>Umbilicariales</i>	<i>Elixiaceae</i> (2)
			<i>Fuscideaceae</i> (4)
			<i>Ophioparmaceae</i> (3)
			<i>Ropalosporaceae</i> (1)
			<i>Umbilicariaceae</i> (3)
		<i>Incertae sedis</i>	<i>Epigloeaceae</i> (1)
	<i>Lecanoromycetes</i> genera <i>incertae</i> <i>sedis</i> (15)		
	<i>Leotiomycetes</i>	<i>Chaetomellales</i>	<i>Chaetomellaceae</i> (4)
		<i>Cyttariales</i>	<i>Cyttariaceae</i> (1)
		<i>Helotiales</i>	<i>Amicodiscaceae</i> (1)
			<i>Arachnopezizaceae</i> (5)
			<i>Ascocorticiaceae</i> (1)
			<i>Ascodichaenaceae</i> (2)
			<i>Bloxamiaceae</i> (1)
			<i>Bryoglossaceae</i> (3)
			<i>Calloriaceae</i> (14)
			<i>Cenangiaceae</i> (11)
			<i>Chlorociboriaceae</i> (1)
			<i>Chlorospleniaceae</i> (1)
			<i>Chrysodiscaceae</i> (1)
			<i>Cordieritidaceae</i> (18)
			<i>Dermateaceae</i> (14)
			<i>Discinellaceae</i> (12)
			<i>Drepanopezizaceae</i> (8)
			<i>Erysiphaceae</i> (20)
			<i>Gelatinodiscaceae</i> (9)
			<i>Godroniaceae</i> (5)
			<i>Helotiaceae</i> (33)
			<i>Heterosphaeriaceae</i> (1)
			<i>Hyaloscyphaceae</i> (37)
			<i>Lachnaceae</i> (18)
			<i>Leptodontidiaceae</i> (1)
			<i>Loramycetaceae</i> (2)
			<i>Mitrulaceae</i> (1)



**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Mollisiaceae</i> (18)
			<i>Myxotrichaceae</i> (3)
			<i>Neolauriomycetaceae</i> (3)
			<i>Pezizellaceae</i> (23)
			<i>Ploettnerulaceae</i> (12)
			<i>Rutstroemiaceae</i> (7)
			<i>Sclerotiniaceae</i> (31)
			<i>Vibrisseaceae</i> (5)
		<i>Helotiales</i> genera <i>incertae sedis</i> (144)	
		<i>Lahmiales</i>	<i>Lahmiaceae</i> (1)
		<i>Lauriomycetales</i>	<i>Lauriomycetaceae</i> (1)
		<i>Leotiales</i>	<i>Cochlearomycetaceae</i> (2)
			<i>Leotiaceae</i> (4)
			<i>Mniaeciaceae</i> (2)
			<i>Tympanidaceae</i> (7)
		<i>Leotiales</i> genera <i>incertae sedis</i> (3)	
		<i>Lichinodiales</i>	<i>Lichinodiaceae</i> (1)
		<i>Marthamycetales</i>	<i>Marthamycetaceae</i> (9)
		<i>Medeolariales</i>	<i>Medeolariaceae</i> (1)
		<i>Micraspidales</i>	<i>Micraspidaceae</i> (1)
		<i>Phacidiales</i>	<i>Helicogoniaceae</i> (7)
			<i>Phacidiaceae</i> (9)
		<i>Phacidiales</i> genus <i>incertae sedis</i> (1)	
		<i>Rhytismatales</i>	<i>Cudoniaceae</i> (2)
			<i>Rhytismataceae</i> (52)
			<i>Triblidiaceae</i> (2)
		<i>Rhytismatales</i> genera <i>incertae sedis</i> (9)	
		<i>Thelebolales</i>	<i>Pseudeurotiaceae</i> (8)
			<i>Thelebolaceae</i> (10)
		<i>Thelebolales</i> genera <i>incertae sedis</i> (3)	
	<i>Leotiomyces</i> genera <i>incertae</i> <i>sedis</i> (20)		
	<i>Lichinomycetes</i>	<i>Lichinales</i>	<i>Gloeoheppiaceae</i> (3)
			<i>Lichinaceae</i> (43)
			<i>Peltulaceae</i> (1)
	<i>Neoelectomyces</i>	<i>Neoelectales</i>	<i>Neoelectaceae</i> (1)
	<i>Orbiliomyces</i>	<i>Orbiliales</i>	<i>Orbiliaceae</i> (12)
		<i>Orbiliales</i> genus <i>incertae sedis</i> (1)	
	<i>Orbiliomyces</i> genus <i>incertae sedis</i> (1)		
	<i>Pezizomyces</i>	<i>Pezizales</i>	<i>Ascobolaceae</i> (5)
			<i>Ascodesmidaceae</i> (10)
			<i>Caloscyphaceae</i> (1)
			<i>Chorioactidaceae</i> (6)
			<i>Discinaceae</i> (5)
			<i>Glaziellaceae</i> (1)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Helvellaceae</i> (5)
			<i>Kallistoskyphaceae</i> (1)
			<i>Karstenellaceae</i> (1)
			<i>Morchellaceae</i> (7)
			<i>Pezizaceae</i> (38)
			<i>Pseudombrophilaceae</i> (4)
			<i>Pulvinulaceae</i> (3)
			<i>Pyronemataceae</i> (61)
			<i>Rhizinaceae</i> (3)
			<i>Sarcoscyphaceae</i> (12)
			<i>Sarcosomataceae</i> (9)
			<i>Strobiloscyphaceae</i> (1)
			<i>Tarzettaceae</i> (6)
			<i>Tuberaceae</i> (7)
		<i>Pezizales</i> genera <i>incertae sedis</i> (18)	
	<i>Pneumocystomyces</i>	<i>Pneumocystidales</i>	<i>Pneumocystidaceae</i> (1)
	<i>Saccharomyces</i>	<i>Saccharomycetales</i>	<i>Alloascoideaceae</i> (1)
			<i>Ascoideaceae</i> (1)
			<i>Cephaloascaceae</i> (1)
			<i>Debaryomycetaceae</i> (13)
			<i>Dipodascaceae</i> (5)
			<i>Lipomycetaceae</i> (5)
			<i>Metschnikowiaceae</i> (3)
			<i>Phaffomycetaceae</i> (5)
			<i>Pichiaceae</i> (10)
			<i>Saccharomycetaceae</i> (16)
			<i>Saccharomycodaceae</i> (2)
			<i>Saccharomycopsidaceae</i> (2)
			<i>Trichomonascaceae</i> (9)
			<i>Trigonopsidaceae</i> (3)
		<i>Saccharomycetales</i> genera <i>incertae sedis</i> (21)	
	<i>Schizosaccharomyces</i>	<i>Schizosaccharomycetales</i>	<i>Schizosaccharomycetaceae</i> (1)
	<i>Sordariomyces</i>	<i>Amphisphaeriales</i>	<i>Amphisphaeriaceae</i> (3)
			<i>Apiosporaceae</i> (5)
			<i>Beltraniaceae</i> (9)
			<i>Clypeophysalosporaceae</i> (4)
			<i>Cylindriaceae</i> (1)
			<i>Hansfordiaceae</i> (1)
			<i>Hyponectriaceae</i> (17)
			<i>Iodosphaeriaceae</i> (1)
			<i>Melogrammataceae</i> (1)
			<i>Phlogicylindriaceae</i> (3)
			<i>Pseudomassariaceae</i> (4)
			<i>Pseudotruncatellaceae</i> (1)
			<i>Sporocadaceae</i> (33)
			<i>Vialaeaceae</i> (1)
		<i>Amphisphaeriales</i> genus <i>incertae sedis</i> (1)	
		<i>Amplistromatales</i>	<i>Amplistromataceae</i> (3)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Catabotryaceae</i> (1)
		<i>Annulatascales</i>	<i>Annulatascaleae</i> (10)
		<i>Annulatascales</i> genera <i>incertae sedis</i> (1)	
		<i>Atractosporales</i>	<i>Atractosporaceae</i> (2)
			<i>Conlariaceae</i> (2)
			<i>Pseudoproboscisporaceae</i> (2)
		<i>Bolinales</i>	<i>Boliniaceae</i> (9)
		<i>Calosphaeriales</i>	<i>Calosphaeriaceae</i> (4)
			<i>Jobellisiaceae</i> (1)
			<i>Pleurostomataceae</i> (1)
		<i>Calosphaeriales</i> genera <i>incertae sedis</i> (4)	
		<i>Cephalothecales</i>	<i>Cephalothecaceae</i> (5)
		<i>Chaetosphaeriales</i>	<i>Chaetosphaeriaceae</i> (44)
			<i>Helminthosphaeriaceae</i> (7)
			<i>Leptosporrellaceae</i> (1)
			<i>Leptosporrellaceae</i> (1)
			<i>Linocarpaceae</i> (2)
		<i>Chaetosphaeriales</i> genera <i>incertae sedis</i> (7)	
		<i>Coniochaetales</i>	<i>Coniochaetaceae</i> (2)
			<i>Cordanaceae</i> (1)
		<i>Coniochaetales</i> genera <i>incertae sedis</i> (2)	
		<i>Conioscyphales</i>	<i>Conioscyphaceae</i> (1)
		<i>Coronophorales</i>	<i>Bertiaceae</i> (2)
			<i>Ceratostomataceae</i> (14)
			<i>Chaetosphaerellaceae</i> (3)
			<i>Coronophoraceae</i> (1)
			<i>Nitschkiaceae</i> (14)
			<i>Scortechiniaceae</i> (10)
		<i>Coronophorales</i> genera <i>incertae sedis</i> (2)	
		<i>Delonicolales</i>	<i>Delonicicolaceae</i> (2)
		<i>Diaporthales</i>	<i>Apiosporopsidaceae</i> (1)
			<i>Apharknessiaceae</i> (2)
			<i>Asterosporiaceae</i> (1)
			<i>Auratiopycnidiellaceae</i> (1)
			<i>Coryneaceae</i> (1)
			<i>Cryphonectriaceae</i> (28)
			<i>Cytosporaceae</i> (6)
			<i>Diaporthaceae</i> (15)
			<i>Diaporthosporellaceae</i> (1)
			<i>Diaporthostomataceae</i> (1)
			<i>Dwiroopaceae</i> (1)
			<i>Erythrogloeaceae</i> (4)
			<i>Gnomoniaceae</i> (36)
			<i>Harknessiaceae</i> (2)
			<i>Juglanconidaceae</i> (1)
			<i>Lamproconiaceae</i> (2)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Macrohilaceae</i> (1)
			<i>Melanconidaceae</i> (1)
			<i>Melanconiellaceae</i> (7)
			<i>Neomelanconiellaceae</i> (1)
			<i>Phaeoappendicosporaceae</i> (2)
			<i>Prosopidicolaceae</i> (1)
			<i>Pseudomelanconidaceae</i> (2)
			<i>Pseudoplagiostomataceae</i> (1)
			<i>Schizoparmaceae</i> (1)
			<i>Stilbosporaceae</i> (4)
			<i>Sydowiellaceae</i> (16)
			<i>Synnemasporrellaceae</i> (1)
			<i>Tubakiaceae</i> (8)
		<i>Diaporthales</i> genera <i>incertae sedis</i> (36)	
		<i>Distoseptisporales</i>	<i>Distoseptisporaceae</i> (1)
		<i>Falcocladiales</i>	<i>Falcocladiaceae</i> (1)
		<i>Fuscosporellales</i>	<i>Fuscosporellaceae</i> (6)
		<i>Glomerellales</i>	<i>Australiascaceae</i> (1)
			<i>Glomerellaceae</i> (1)
			<i>Malaysiascaceae</i> (1)
			<i>Plectosphaerellaceae</i> (24)
			<i>Reticulascaceae</i> (4)
		<i>Glomerellales</i> genus <i>incertae sedis</i> (1)	
		<i>Hypocreales</i>	<i>Bionectriaceae</i> (47)
			<i>Calcarisporiaceae</i> (1)
			<i>Clavicipitaceae</i> (42)
			<i>Cocoonihibitaceae</i> (1)
			<i>Cordycipitaceae</i> (17)
			<i>Flammocladiellaceae</i> (1)
			<i>Hypocreaceae</i> (17)
			<i>Myrotheciomycetaceae</i> (4)
			<i>Nectriaceae</i> (69)
			<i>Niessliaceae</i> (21)
			<i>Ophiocordycipitaceae</i> (10)
			<i>Sarocladiaceae</i> (2)
			<i>Stachybotryaceae</i> (39)
			<i>Tilachlidiaceae</i> (3)
		<i>Hypocreales</i> genera <i>incertae sedis</i> (29)	
		<i>Jobellisiales</i>	<i>Jobellisiaceae</i> (1)
		<i>Koralionastetales</i>	<i>Koralionastetaceae</i> (2)
		<i>Lulworthiales</i>	<i>Lulworthiaceae</i> (15)
		<i>Magnaporthales</i>	<i>Ceratosphaeriaceae</i> (1)
			<i>Magnaporthaceae</i> (22)
			<i>Ophioceraceae</i> (1)
			<i>Pseudohalonectriaceae</i> (1)
			<i>Pyriculariaceae</i> (11)
		<i>Meliolales</i>	<i>Armatellaceae</i> (1)
			<i>Meliolaceae</i> (8)
		<i>Microascales</i>	<i>Ceratocystidaceae</i> (11)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Chadefaudiellaceae</i> (2)
			<i>Gondwanamycetaceae</i> (2)
			<i>Graphiaceae</i> (1)
			<i>Halosphaeriaceae</i> (66)
			<i>Microascaceae</i> (23)
			<i>Triadelphiaceae</i> (2)
		<i>Microascales</i> genera <i>incertae sedis</i> (6)	
		<i>Myrmecridiales</i>	<i>Myrmecridiaceae</i> (2)
			<i>Xenodactylariaceae</i> (1)
		<i>Ophiostomatales</i>	<i>Kathistaceae</i> (2)
			<i>Ophiostomataceae</i> (13)
		<i>Pararamichloridiales</i>	<i>Pararamichloridiaceae</i> (1)
		<i>Parasymphodiellales</i>	<i>Parasymphodiellaceae</i> (1)
		<i>Phomatosporales</i>	<i>Phomatosporaceae</i> (3)
		<i>Phyllachorales</i>	<i>Phaeochoraceae</i> (4)
			<i>Phaeochorellaceae</i> (1)
			<i>Phyllachoraceae</i> (54)
			<i>Telimenaceae</i> (1)
		<i>Phyllachorales</i> genus <i>incertae sedis</i> (1)	
		<i>Pisorisporiales</i>	<i>Pisorisporiaceae</i> (2)
		<i>Pleurotheciales</i>	<i>Pleurotheciaceae</i> (11)
		<i>Pseudodactylariales</i>	<i>Pseudodactylariaceae</i> (1)
		<i>Savoryellales</i>	<i>Savoryellaceae</i> (4)
		<i>Sordariales</i>	<i>Chaetomiaceae</i> (37)
			<i>Lasiosphaeriaceae</i> (32)
			<i>Podosporaceae</i> (3)
			<i>Sordariaceae</i> (7)
		<i>Sordariales</i> genera <i>incertae sedis</i> (22)	
		<i>Spathulosporales</i>	<i>Hispidicarpomycetaceae</i> (1)
			<i>Spathulosporaceae</i> (2)
		<i>Sporidesmiales</i>	<i>Sporidesmiaceae</i> (1)
		<i>Tirisporellales</i>	<i>Tirisporellaceae</i> (3)
		<i>Togniniales</i>	<i>Togniniaceae</i> (2)
		<i>Torpedosporales</i>	<i>Etheiophoraceae</i> (2)
			<i>Juncigenaceae</i> (5)
			<i>Torpedosporaceae</i> (1)
		<i>Tracyllalales</i>	<i>Tracyllaceae</i> (1)
		<i>Vermiculariopsiellales</i>	<i>Vermiculariopsiellaceae</i> (1)
		<i>Xenospadicoidales</i>	<i>Xenospadicoidaceae</i> (5)
		<i>Xylariales</i>	<i>Anungitomycetaceae</i> (1)
			<i>Barrmaeliaceae</i> (2)
			<i>Castanediellaceae</i> (1)
			<i>Clypeosphaeriaceae</i> (6)
			<i>Coniocessiaceae</i> (2)
			<i>Diatrypaceae</i> (20)
			<i>Fasciatisoraceae</i> (1)
			<i>Graphostromataceae</i> (5)
			<i>Hypoxylaceae</i> (19)
			<i>Induratiaceae</i> (2)
			<i>Leptosilliaceae</i> (1)
			<i>Lopadostomataceae</i> (4)

Table 1 Continued.

Phylum	Class*	Order*	Family*
			<i>Microdochiaceae</i> (3)
			<i>Myelospermataceae</i> (1)
			<i>Nothodactylariaceae</i> (1)
			<i>Oxydothidaceae</i> (1)
			<i>Polystigmataceae</i> (1)
			<i>Pseudosporidesmiaceae</i> (1)
			<i>Requienellaceae</i> (4)
			<i>Xyladictyochaetaceae</i> (1)
			<i>Xylariaceae</i> (32)
			<i>Zygosporiaceae</i> (1)
		<i>Xylariales</i> genera <i>incertae sedis</i> (56)	
		<i>Incertae sedis</i>	<i>Acrodictyaceae</i> (1)
			<i>Barbatosphaeriaceae</i> (3)
			<i>Batistiaceae</i> (1)
			<i>Cainiaceae</i> (6)
			<i>Junewangiaceae</i> (2)
			<i>Lautosporaceae</i> (1)
			<i>Obryzaceae</i> (1)
			<i>Papulosaceae</i> (4)
			<i>Rhamphoriaceae</i> (4)
			<i>Thyridiaceae</i> (2)
			<i>Trichosphaeriaceae</i> (10)
			<i>Woswasiaceae</i> (3)
	<i>Sordariomycetes</i> genera <i>incertae</i> <i>sedis</i> (131)		
	<i>Taphrinomycetes</i>	<i>Taphrinales</i>	<i>Protomycetaceae</i> (6)
			<i>Taphrinaceae</i> (1)
	<i>Xylobotryomycetes</i>	<i>Xylobotryales</i>	<i>Cirrosporiaceae</i> (1)
			<i>Xylobotryaceae</i> (1)
	<i>Xylonomycetes</i>	<i>Symbiotaphrinales</i>	<i>Symbiotaphrinaceae</i> (1)
		<i>Xylonales</i>	<i>Xylonaceae</i> (2)
	<i>Incertae sedis</i>	<i>Thelocarpales</i>	<i>Thelocarpaceae</i> (2)
		<i>Vezdaeales</i>	<i>Vezdaeaceae</i> (1)
	<i>Incertae sedis</i>	<i>Incertae sedis</i>	<i>Aphanopsidaceae</i> (2)
			<i>Diporothecaceae</i> (1)
			<i>Eoterfeziaceae</i> (2)
			<i>Harpidiaceae</i> (2)
			<i>Mucomassariaceae</i> (1)
			<i>Saccardiaceae</i> (7)
			<i>Seuratiaceae</i> (2)
			<i>Strangosporaceae</i> (1)
	<i>Ascomycota</i> genera <i>incertae sedis</i> (1485)		
<i>Basidiobolomycota</i>	<i>Basidiobolomycetes</i>	<i>Basidiobolales</i>	<i>Basidiobolaceae</i> (2)
<i>Basidiomycota</i>	<i>Agaricomycetes</i>	<i>Agaricales</i>	<i>Agaricaceae</i> (59)
			<i>Amanitaceae</i> (5)
			<i>Biannulariaceae</i> (7)
			<i>Bolbitiaceae</i> (15)
			<i>Broomeiaceae</i> (1)
			<i>Chromocyphellaceae</i> (1)
			<i>Clavariaceae</i> (10)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Cortinariaceae</i> (5)
			<i>Crassisporiaceae</i> (2)
			<i>Crepidotaceae</i> (6)
			<i>Cyphellaceae</i> (16)
			<i>Cystostereaceae</i> (7)
			<i>Entolomataceae</i> (7)
			<i>Hemigasteraceae</i> (1)
			<i>Hydnangiaceae</i> (4)
			<i>Hygrophoraceae</i> (26)
			<i>Hymenogastraceae</i> (10)
			<i>Inocybaceae</i> (3)
			<i>Limnoperdaceae</i> (1)
			<i>Lycoperdaceae</i> (7)
			<i>Lyophyllaceae</i> (18)
			<i>Macrocytidiaceae</i> (1)
			<i>Marasmiaceae</i> (10)
			<i>Mycenaceae</i> (16)
			<i>Mythicomycetaceae</i> (2)
			<i>Niaceae</i> (9)
			<i>Omphalotaceae</i> (14)
			<i>Physalacriaceae</i> (28)
			<i>Pleurotaceae</i> (5)
			<i>Pluteaceae</i> (3)
			<i>Porotheleaceae</i> (2)
			<i>Psathyrellaceae</i> (13)
			<i>Pseudoclitocybaceae</i> (7)
			<i>Pterulaceae</i> (13)
			<i>Schizophyllaceae</i> (3)
			<i>Stephanosporaceae</i> (5)
			<i>Strophariaceae</i> (11)
			<i>Tricholomataceae</i> (10)
			<i>Tubariaceae</i> (7)
			<i>Typhulaceae</i> (4)
		<i>Agaricales</i> genera <i>incertae sedis</i> (134)	
		<i>Amylocorticiales</i>	<i>Amylocorticiaceae</i> (11)
		<i>Atheliales</i>	<i>Atheliaceae</i> (20)
		<i>Auriculariales</i>	<i>Auriculariaceae</i> (12)
			<i>Hyaloriaceae</i> (3)
		<i>Auriculariales</i> genera <i>incertae sedis</i> (31)	
		<i>Boletales</i>	<i>Boletaceae</i> (92)
			<i>Boletinellaceae</i> (2)
			<i>Calostomataceae</i> (1)
			<i>Coniophoraceae</i> (5)
			<i>Diplocystidiaceae</i> (4)
			<i>Gasterellaceae</i> (1)
			<i>Gomphidiaceae</i> (4)
			<i>Gyroporaceae</i> (1)
			<i>Hygrophoropsidaceae</i> (2)
			<i>Paxillaceae</i> (10)
			<i>Protogastraceae</i> (1)
			<i>Rhizopogonaceae</i> (3)
			<i>Sclerodermataceae</i> (5)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Serpulaceae</i> (3)
			<i>Suillaceae</i> (2)
			<i>Tapinellaceae</i> (3)
		<i>Boletales</i> genera <i>incertae sedis</i> (4)	
		<i>Cantharellales</i>	<i>Aphelariaceae</i> (3)
			<i>Botryobasidiaceae</i> (5)
			<i>Ceratobasidiaceae</i> (6)
			<i>Hydnaceae</i> (21)
			<i>Oliveoniaceae</i> (1)
			<i>Tulasnellaceae</i> (2)
	<i>Bartheletiomycetes</i>	<i>Bartheletiales</i>	<i>Bartheletiaceae</i> (1)
		<i>Cantharellales</i> genera <i>incertae sedis</i> (8)	
		<i>Corticiales</i>	<i>Corticaceae</i> (12)
			<i>Dendrominiaceae</i> (1)
			<i>Punctulariaceae</i> (3)
			<i>Vuilleminiaceae</i> (3)
		<i>Corticiales</i> genera <i>incertae sedis</i> (7)	
		<i>Geastrales</i>	<i>Geastraceae</i> (7)
			<i>Sclerogastraceae</i> (1)
		<i>Geastrales</i> genus <i>incertae sedis</i> (1)	
		<i>Gloeophyllales</i>	<i>Gloeophyllaceae</i> (12)
		<i>Gloeophyllales</i> genus <i>incertae sedis</i> (1)	
		<i>Gomphales</i>	<i>Clavariadelphaceae</i> (2)
			<i>Gomphaceae</i> (14)
			<i>Lentariaceae</i> (3)
		<i>Hymenochaetales</i>	<i>Hymenochaetaceae</i> (40)
			<i>Neoantrodidiellaceae</i> (1)
			<i>Nigrofomitaceae</i> (1)
			<i>Oxyporaceae</i> (1)
			<i>Rickenellaceae</i> (8)
			<i>Schizoporaceae</i> (13)
		<i>Hymenochaetales</i> genera <i>incertae sedis</i> (15)	
		<i>Hysterangiales</i>	<i>Gallaceaceae</i> (3)
			<i>Hysterangiaceae</i> (4)
			<i>Mesophelliaceae</i> (8)
			<i>Phallogastraceae</i> (2)
			<i>Trappeaceae</i> (3)
		<i>Jaapiales</i>	<i>Jaapiaceae</i> (1)
		<i>Lepidostromatales</i>	<i>Lepidostromataceae</i> (3)
		<i>Phallales</i>	<i>Claustulaceae</i> (5)
			<i>Gastrosporiaceae</i> (1)
			<i>Phallaceae</i> (26)
		<i>Phallales</i> genera <i>incertae sedis</i> (2)	
		<i>Polyporales</i>	<i>Cerrenaceae</i> (4)
			<i>Dacrybolaceae</i> (7)
			<i>Fomitopsidaceae</i> (25)



Table 1 Continued.

Phylum	Class*	Order*	Family*
			<i>Fragiliporiaceae</i> (1)
			<i>Gelatoporiaceae</i> (4)
			<i>Grifolaceae</i> (2)
			<i>Hyphodermataceae</i> (1)
			<i>Incrustoporiaceae</i> (5)
			<i>Irpicaceae</i> (14)
			<i>Ischnodermataceae</i> (1)
			<i>Laetiporaceae</i> (3)
			<i>Meripilaceae</i> (3)
			<i>Meruliaceae</i> (22)
			<i>Panaceae</i> (2)
			<i>Phanerochaetaceae</i> (18)
			<i>Podoscyphaceae</i> (3)
			<i>Polyporaceae</i> (85)
			<i>Sparassidaceae</i> (3)
			<i>Steccherinaceae</i> (22)
		<i>Polyporales</i> genera <i>incertae sedis</i> (67)	
		<i>Russulales</i>	<i>Albatrellaceae</i> (8)
			<i>Auriscalpiaceae</i> (6)
			<i>Bondarzewiaceae</i> (9)
			<i>Echinodontiaceae</i> (3)
			<i>Hericiaceae</i> (6)
			<i>Hybogasteraceae</i> (1)
			<i>Peniophoraceae</i> (16)
			<i>Russulaceae</i> (7)
			<i>Stereaceae</i> (22)
			<i>Xenasmataceae</i> (3)
		<i>Russulales</i> genera <i>incertae sedis</i> (15)	
		<i>Sebacinales</i>	<i>Sebacinaceae</i> (8)
			<i>Serendipitaceae</i> (1)
		<i>Stereopsidales</i>	<i>Stereopsidaceae</i> (1)
		<i>Thelephorales</i>	<i>Bankeraceae</i> (5)
			<i>Thelephoraceae</i> (9)
		<i>Thelephorales</i> genus <i>incertae sedis</i> (1)	
		<i>Trechisporales</i>	<i>Hydnodontaceae</i> (13)
		<i>Tremellodendropsidales</i>	<i>Tremellodendropsidaceae</i> (1)
	<i>Agaricomycetes</i> genera <i>incertae</i> <i>sedis</i> (40)		
	<i>Agaricostilbomycetes</i>	<i>Agaricostilbales</i>	<i>Agaricostilbaceae</i> (3)
			<i>Chionosphaeraceae</i> (5)
			<i>Kondoaceae</i> (2)
			<i>Ruineniaceae</i> (1)
		<i>Agaricostilbales</i> genera <i>incertae sedis</i> (2)	
	<i>Atractiellomycetes</i>	<i>Atractiellales</i>	<i>Atractogloeaceae</i> (1)
			<i>Hoehnelomycetaceae</i> (2)
			<i>Phleogenaceae</i> (7)
	<i>Classiculomycetes</i>	<i>Classiculales</i>	<i>Classiculaceae</i> (2)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
	<i>Cryptomycocolacomycetes</i>	<i>Cryptomycocolacales</i>	<i>Cryptomycocolacaceae</i> (2)
	<i>Cystobasidiomycetes</i>	<i>Buckleyzymales</i>	<i>Buckleyzymaceae</i> (1)
		<i>Cystobasidiales</i>	<i>Cystobasidiaceae</i> (3)
		<i>Erythrobasidiales</i>	<i>Erythrobasidiaceae</i> (2)
		<i>Erythrobasidiales</i> genera <i>incertae sedis</i> (3)	
		<i>Naohideales</i>	<i>Naohideaceae</i> (1)
		<i>Sakaguchiales</i>	<i>Sakaguchiaceae</i> (1)
		<i>Incertae sedis</i>	<i>Microsporomycetaceae</i> (1)
		<i>Incertae sedid</i>	<i>Symmetrosporaceae</i> (1)
	<i>Cystobasidiomycetes</i> genus <i>incertae sedis</i> (1)		
	<i>Dacrymycetes</i>	<i>Dacrymycetales</i>	<i>Cerinomycetaceae</i> (1) <i>Dacrymycetaceae</i> (10)
		<i>Unilacrymales</i>	<i>Unilacrymaceae</i> (1)
	<i>Exobasidiomycetes</i>	<i>Ceraceosorales</i>	<i>Ceraceosoraceae</i> (1)
		<i>Doassansiales</i>	<i>Doassansiaceae</i> (11) <i>Melaniellaceae</i> (1) <i>Rhamphosporaceae</i> (1)
		<i>Entylomatales</i>	<i>Entylomataceae</i> (2)
		<i>Exobasidiales</i>	<i>Brachybasidiaceae</i> (5) <i>Cryptobasidiaceae</i> (6) <i>Exobasidiaceae</i> (4) <i>Graphiolaceae</i> (2) <i>Laurobasidiaceae</i> (1)
		<i>Georgefischeriales</i>	<i>Eballistraceae</i> (1) <i>Georgefischeriaceae</i> (2) <i>Gjaerumiaceae</i> (1) <i>Tilletiariaceae</i> (3)
		<i>Golubeviales</i>	<i>Golubeviaceae</i> (1)
		<i>Microstromatales</i>	<i>Microstromataceae</i> (1) <i>Quambalariaceae</i> (1) <i>Volvocisporiaceae</i> (1)
		<i>Microstromatales</i> genera <i>incertae sedis</i> (4)	
		<i>Robbauerales</i>	<i>Robbaueraceae</i> (1)
		<i>Tilletiales</i>	<i>Erratomycetaceae</i> (1) <i>Tilletiaceae</i> (6)
	<i>Malasseziomycetes</i>	<i>Malasseziales</i>	<i>Malasseziaceae</i> (1)
	<i>Microbotryomycetes</i>	<i>Heterogastridiales</i>	<i>Heterogastridiaceae</i> (3)
		<i>Kriegeriales</i>	<i>Camptobasidiaceae</i> (2) <i>Kriegeriaceae</i> (4)
		<i>Leucosporidiales</i>	<i>Leucosporidiaceae</i> (1)
		<i>Microbotryales</i>	<i>Microbotryaceae</i> (4) <i>Ustilentylomataceae</i> (4)
		<i>Sporidiobolales</i>	<i>Sporidiobolaceae</i> (3)
		<i>Incertae sedis</i>	<i>Chrysozymaceae</i> (4) <i>Colacogloeaceae</i> (1)
	<i>Microbotryomycetes</i> genera <i>incertae sedis</i> (15)		
	<i>Mixiomycetes</i>	<i>Mixiales</i>	<i>Mixiaceae</i> (1)
	<i>Moniliellomycetes</i>	<i>Moniliellales</i>	<i>Moniliellaceae</i> (1)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
	<i>Pucciniomycetes</i>	<i>Helicobasidiales</i>	<i>Helicobasidiaceae</i> (2)
		<i>Pachnocybales</i>	<i>Pachnocybaceae</i> (1)
		<i>Platyglloeales</i>	<i>Eocronartiaceae</i> (5)
			<i>Platyglloeaceae</i> (4)
		<i>Pucciniales</i>	<i>Chaconiaceae</i> (9)
			<i>Coleosporiaceae</i> (5)
			<i>Cronartiaceae</i> (3)
			<i>Melampsoraceae</i> (1)
			<i>Mikronegeriaceae</i> (3)
			<i>Phakopsoraceae</i> (15)
			<i>Phragmidiaceae</i> (13)
			<i>Pileolariaceae</i> (4)
			<i>Pucciniaceae</i> (21)
			<i>Pucciniastraceae</i> (10)
			<i>Puccinosiraceae</i> (10)
			<i>Raveneliaceae</i> (24)
			<i>Sphaerophragmiaceae</i> (2)
			<i>Uncolaceae</i> (2)
			<i>Uropyxidaceae</i> (16)
		<i>Pucciniales</i> genera <i>incertae sedis</i> (24)	
		<i>Septobasidiales</i>	<i>Septobasidiaceae</i> (6)
	<i>Spiculogloeomycetes</i>	<i>Spiculogloeales</i>	<i>Spiculogloeaceae</i> (2)
	<i>Tremellomycetes</i>	<i>Cystofilobasidiales</i>	<i>Cystofilobasidiaceae</i> (1)
			<i>Mrakiaceae</i> (7)
		<i>Filobasidiales</i>	<i>Filobasidiaceae</i> (5)
			<i>Piskurozymaceae</i> (2)
		<i>Holtermanniales</i>	<i>Holtermanniaceae</i> (2)
		<i>Tremellales</i>	<i>Bulleraceae</i> (4)
			<i>Bulleribasidiaceae</i> (6)
			<i>Carcinomycetaceae</i> (1)
			<i>Cryptococcaceae</i> (2)
			<i>Cuniculitremaceae</i> (3)
			<i>Naemateliaceae</i> (2)
			<i>Phaeotremellaceae</i> (2)
			<i>Phragmoxenidiaceae</i> (1)
			<i>Rhynchogastremaceae</i> (3)
			<i>Sirobasidiaceae</i> (1)
			<i>Tremellaceae</i> (3)
			<i>Trimorphomycetaceae</i> (4)
		<i>Tremellales</i> genera <i>incertae sedis</i> (8)	
		<i>Trichosporonales</i>	<i>Tetragonomycetaceae</i> (3)
			<i>Trichosporonaceae</i> (8)
	<i>Tremellomycetes</i> genera <i>incertae sedis</i> (3)		
	<i>Tritirachiomycetes</i>	<i>Tritirachiales</i>	<i>Tritirachiaceae</i> (2)
	<i>Ustilaginomycetes</i>	<i>Uleiellales</i>	<i>Uleiellaceae</i> (1)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
		<i>Urocystidales</i>	<i>Doassansiopsidaceae</i> (1)
			<i>Fereydowniaceae</i> (1)
			<i>Floromycetaceae</i> (2)
			<i>Glomosporiaceae</i> (1)
			<i>Mycosyringaceae</i> (1)
			<i>Urocystidaceae</i> (7)
		<i>Ustilaginales</i>	<i>Anthracoideaceae</i> (19)
			<i>Cintractiellaceae</i> (1)
			<i>Clintamraceae</i> (1)
			<i>Geminaginaceae</i> (1)
			<i>Melanotaeniaceae</i> (3)
			<i>Pericladiaceae</i> (1)
			<i>Ustilaginaceae</i> (6)
			<i>Websdaneaceae</i> (2)
		<i>Ustilaginales</i> genera <i>incertae sedis</i> (20)	
		<i>Violaceomycetales</i>	<i>Violaceomycetaceae</i> (1)
	<i>Ustilaginomyces</i> genus <i>incertae sedis</i> (1)		
	<i>Wallemiomycetes</i>	<i>Geminibasidiales</i>	<i>Geminibasidiaceae</i> (2)
		<i>Wallemiales</i>	<i>Wallemiaceae</i> (1)
	<i>Wallemiomycetes</i> genus <i>incertae sedis</i> (1)		
<i>Basidiomycota</i> genera <i>incertae</i> <i>sedis</i> (11)			
<i>Blastocladiomycota</i>	<i>Blastocladiomycetes</i>	<i>Blastocladales</i>	<i>Blastocladiaceae</i> (3)
<i>a</i>			<i>Catenariaceae</i> (2)
			<i>Paraphysodermataceae</i> (1)
			<i>Sorochytriaceae</i> (1)
		<i>Blastocladales</i> genus <i>incertae sedis</i> (1)	
		<i>Callimastigales</i>	<i>Callimastigaceae</i> (1)
			<i>Coelomomycetaceae</i> (2)
		<i>Catenomycetales</i>	<i>Catenomycetaceae</i> (1)
	<i>Blastocladiomycetes</i> genus <i>incertae sedis</i> (1)		
	<i>Physodermatomyces</i>	<i>Physodermatales</i>	<i>Physodermataceae</i> (1)
<i>Calcarisporiellomycota</i>	<i>Calcarisporiellomyces</i>	<i>Calcarisporiellales</i>	<i>Calcarisporiellaceae</i> (2)
<i>Caulochytriomycota</i>	<i>Caulochytriomyces</i>	<i>Caulochytriales</i>	<i>Caulochytriaceae</i> (1)
<i>Chytridiomycota</i>	<i>Chytridiomycetes</i>	<i>Chytridiales</i>	<i>Asterophlyctaceae</i> (2)
			<i>Chytridiaceae</i> (6)
			<i>Chytriomycetaceae</i> (11)
			<i>Phlyctochytriaceae</i> (1)
			<i>Phlyctorhizaceae</i> (1)
			<i>Pseudorhizidiaceae</i> (1)
			<i>Scherffeliomycetaceae</i> (1)
			<i>Zygorhizidiaceae</i> (1)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
		<i>Chytridiales</i> genus <i>incertae sedis</i> (1)	
		<i>Nephridiophagales</i>	<i>Nephridiophagaceae</i> (4)
		<i>Polyphagales</i>	<i>Polyphagaceae</i> (1)
		<i>Saccopodiales</i>	<i>Saccopodiaceae</i> (1)
		<i>Incertae sedis</i>	<i>Amoebochytriaceae</i> (1)
			<i>Sparrowiaceae</i> (1)
			<i>Sphaeromonadaceae</i> (1)
			<i>Tetrachytriaceae</i> (1)
			<i>Thallassochytriaceae</i> (1)
	<i>Chytridiomycetes</i> genera <i>incertae sedis</i> (39)		
	<i>Cladochytriomycetes</i>	<i>Cladochytriales</i>	<i>Catenochytridiaceae</i> (1)
			<i>Cladochytriaceae</i> (1)
			<i>Endochytriaceae</i> (2)
			<i>Nowakowskiellaceae</i> (1)
			<i>Septochytriaceae</i> (1)
		<i>Cladochytriales</i> genera <i>incertae sedis</i> (3)	
	<i>Lobulomycetes</i>	<i>Lobulomycetales</i>	<i>Alogomycetaceae</i> (1)
			<i>Lobulomycetaceae</i> (4)
		<i>Lobulomycetales</i> genus <i>incertae sedis</i> (1)	
	<i>Mesochytriomycetes</i>	<i>Gromochytriales</i>	<i>Gromochytriaceae</i> (1)
		<i>Mesochytriales</i>	<i>Mesochytriaceae</i> (1)
	<i>Polychytriomycetes</i>	<i>Polychytriales</i>	<i>Arkayaceae</i> (1)
			<i>Polychytriaceae</i> (4)
	<i>Rhizophyidiomycetes</i>	<i>Rhizophydiales</i>	<i>Alphamycetaceae</i> (3)
			<i>Angulomycetaceae</i> (1)
			<i>Aquamycetaceae</i> (1)
			<i>Batrachochytriaceae</i> (1)
			<i>Collimycetaceae</i> (1)
			<i>Coralloidiomycetaceae</i> (1)
			<i>Dinomycetaceae</i> (1)
			<i>Globomycetaceae</i> (2)
			<i>Gorgonomycetaceae</i> (1)
			<i>Halomycetaceae</i> (4)
			<i>Kappamycetaceae</i> (1)
			<i>Operculomycetaceae</i> (1)
			<i>Pateramycetaceae</i> (1)
			<i>Protrudomycetaceae</i> (1)
			<i>Rhizophydiaceae</i> (1)
			<i>Staurastrumycetaceae</i> (1)
			<i>Terramycetaceae</i> (2)
			<i>Uebelmesseromycetaceae</i> (1)
		<i>Rhizophydiales</i> genus <i>incertae sedis</i> (1)	
	<i>Rhizophlyctidomycetes</i>	<i>Rhizophlyctidales</i>	<i>Arizonaphlyctidaceae</i> (1)
			<i>Borealophlyctidaceae</i> (1)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Rhizophlyctidaceae</i> (1)
			<i>Sonoraphlyctidaceae</i> (1)
	<i>Spizellomyces</i>	<i>Spizellomycetales</i>	<i>Powellomycetaceae</i> (4)
			<i>Spizellomycetaceae</i> (8)
	<i>Synchytriumycetes</i>	<i>Synchytriales</i>	<i>Synchytriaceae</i> (4)
		<i>Synchytriales</i> genus <i>incertae sedis</i> (1)	
<i>Chytridiomycota</i> genera <i>incertae sedis</i> (3)			
<i>Entomophthoromycota</i> <i>a</i>	<i>Entomophthoromycetes</i>	<i>Entomophthorales</i>	<i>Ancylistaceae</i> (3)
			<i>Completoriaceae</i> (1)
			<i>Entomophthoraceae</i> (11)
			<i>Meristacraceae</i> (1)
	<i>Neozygitymyces</i>	<i>Neozygiales</i>	<i>Neozygiteaceae</i> (4)
<i>Entorrhizomycota</i>	<i>Entorrhizomycetes</i>	<i>Entorrhizales</i>	<i>Entorrhizaceae</i> (1)
		<i>Talbotiomycetales</i>	<i>Talbotiomycetaceae</i> (1)
<i>Glomeromycota</i>	<i>Archaeosporomycetes</i>	<i>Archaeosporales</i>	<i>Ambisporaceae</i> (1)
			<i>Archaeosporaceae</i> (3)
			<i>Geosiphonaceae</i> (1)
	<i>Glomeromycetes</i>	<i>Diversisporales</i>	<i>Acaulosporaceae</i> (1)
			<i>Diversisporaceae</i> (7)
			<i>Pacisporaceae</i> (1)
			<i>Sacculosporaceae</i> (1)
		<i>Gigasporales</i>	<i>Dentiscutataceae</i> (3)
			<i>Gigasporaceae</i> (1)
			<i>Intraornatosporaceae</i> (2)
			<i>Racocetraceae</i> (2)
			<i>Scutellosporaceae</i> (3)
		<i>Glomerales</i>	<i>Entrophosporaceae</i> (3)
			<i>Glomeraceae</i> (17)
	<i>Paraglomeromycetes</i>	<i>Paraglomerales</i>	<i>Paraglomeraceae</i> (2)
			<i>Pervetustaceae</i> (1)
<i>Kickxellomycota</i>	<i>Asellariomycetes</i>	<i>Asellariales</i>	<i>Asellariaceae</i> (1)
		<i>Asellariales</i> genus <i>incertae sedis</i> (1)	
	<i>Barbatosporomycetes</i>	<i>Barbatosporales</i>	<i>Barbatosporaceae</i> (1)
	<i>Dimargaritomycetes</i>	<i>Dimargaritales</i>	<i>Dimargaritaceae</i> (3)
		<i>Dimargaritales</i> genus <i>incertae sedis</i> (1)	
	<i>Harpellomycetes</i>	<i>Harpellales</i>	<i>Harpellaceae</i> (6)
			<i>Legeriomycetaceae</i> (38)
		<i>Harpellales</i> genus <i>incertae sedis</i> (1)	
	<i>Kickxellomycetes</i>	<i>Kickxellales</i>	<i>Kickxellaceae</i> (11)
	<i>Ramicandelaberomycetes</i>	<i>Ramicandelaberales</i>	<i>Ramicandelaberaceae</i> (1)
<i>Monoblepharomycota</i>	<i>Hyaloraphidiomycetes</i>	<i>Hyaloraphidiales</i>	<i>Hyaloraphidiaceae</i> (1)
	<i>Monoblepharidomycetes</i>	<i>Monoblepharidales</i>	<i>Gonapodyaceae</i> (2)
			<i>Harpochytriaceae</i> (1)
			<i>Monoblepharidaceae</i> (1)

**Table 1** Continued.

<b>Phylum</b>	<b>Class*</b>	<b>Order*</b>	<b>Family*</b>
			<i>Oedogoniomycetaceae</i> (1)
			<i>Telasphaerulaceae</i> (1)
	<i>Sanchytriomycetes</i>	<i>Sanchytriales</i>	<i>Sanchytriaceae</i> (2)
<i>Mortierellomycota</i>	<i>Mortierellomycetes</i>	<i>Mortierellales</i>	<i>Mortierellaceae</i> (6)
<i>Mucoromycota</i>	<i>Endogonomycetes</i>	<i>Endogonales</i>	<i>Densosporaceae</i> (1)
			<i>Endogonaceae</i> (5)
	<i>Mucoromycetes</i>	<i>Mucorales</i>	<i>Backusellaceae</i> (1)
			<i>Choanephoraceae</i> (4)
			<i>Cunninghamellaceae</i> (6)
			<i>Lentamycetaceae</i> (1)
			<i>Lichtheimiaceae</i> (9)
			<i>Mucoraceae</i> (20)
			<i>Mycocladaceae</i> (1)
			<i>Mycotyphaceae</i> (1)
			<i>Phycomycetaceae</i> (2)
			<i>Pilobolaceae</i> (2)
			<i>Radiomycetaceae</i> (1)
			<i>Rhizopodaceae</i> (3)
			<i>Saksenaaceae</i> (2)
			<i>Syncephalastraceae</i> (2)
	<i>Umbelopsidomycetes</i>	<i>Umbelopsidales</i>	<i>Umbelopsidaceae</i> (1)
<i>Mucoromycota</i> genus <i>incertae sedis</i> (1)			
<i>Neocallimastigomycota</i>	<i>Neocallimastigomycetes</i>	<i>Neocallimastigales</i>	<i>Neocallimastigaceae</i> (11)
<i>Olpidiomycota</i>	<i>Olpidiomycetes</i>	<i>Olpidiales</i>	<i>Olpidiaceae</i> (4)
<i>Rozellomycota</i>	<i>Rudimicrosporea</i>	<i>Metchnikovellida</i>	<i>Amphiacanthidae</i> (1)
			<i>Metchnikovellidae</i> (4)
	<i>Microsporidea</i>	<i>Amblyosporida</i>	<i>Amblyosporidae</i> (17)
			<i>Caudosporidae</i> (10)
			<i>Gurleyidae</i> (13)
		<i>Amblyosporida</i> genera <i>incertae</i> <i>sedis</i> (5)	
		<i>Neopereziiida</i>	<i>Berwaldiidae</i> (2)
			<i>Neopereziiidae</i> (6)
			<i>Tubulinosematidae</i> (3)
		<i>Neopereziiida</i> genera <i>incertae</i> <i>sedis</i> (2)	
		<i>Ovavesiculida</i>	<i>Ovavesiculidae</i> (3)
		<i>Ovavesiculida</i> genus <i>incertae</i> <i>sedis</i> (1)	
		<i>Glugeida</i>	<i>Facilisporidae</i> (1)
			<i>Glugeidae</i> (8)
			<i>Myosporidae</i> (1)
			<i>Pereziiidae</i> (4)
			<i>Pleistophoridae</i> (7)
			<i>Spragueiidae</i> (7)
			<i>Thelohaniidae</i> (15)
			<i>Unikaryonidae</i> (4)

**Table 1** Continued.

Phylum	Class*	Order*	Family*
		<i>Glugeida</i> genus <i>incertae sedis</i> (1)	
		<i>Nosematida</i>	<i>Encephalitozoonidae</i> (2)
			<i>Enterocytozoonidae</i> (6)
			<i>Heterovesiculidae</i> (1)
			<i>Mrazekiidae</i> (8)
			<i>Nosematidae</i> (2)
			<i>Ordosporidae</i> (1)
		<i>Nosematida</i> genera <i>incertae sedis</i> (15)	
		<i>Incertae sedis</i>	<i>Abelsporidae</i> (1)
			<i>Areosporiidae</i> (1)
			<i>Burenellidae</i> (3)
			<i>Cougourdellidae</i> (1)
			<i>Cylindrosporidae</i> (1)
			<i>Duboscqiidae</i> (5)
			<i>Golbergiidae</i> (3)
			<i>Microfilidae</i> (1)
			<i>Neonosemoidiidae</i> (1)
			<i>Pleistosporidiidae</i> (1)
			<i>Pseudopleistophoridae</i> (2)
			<i>Striatosporidae</i> (1)
			<i>Telomyxidae</i> (1)
			<i>Toxoglugeidae</i> (2)
			<i>Tuzetiidae</i> (4)
	<i>Incertae sedis</i>	<i>Chytridiopsidea</i>	<i>Buxtehudidae</i> (2)
			<i>Chytridiopsidae</i> (5)
			<i>Hesseidae</i> (1)
		<i>Rozellomycota</i> genera <i>incertae sedis</i> (5)	
<i>Zoopagomycota</i>	<i>Zoopagomycetes</i>	<i>Zoopagales</i>	<i>Cochlonemataceae</i> (7)
			<i>Helicocephalidaceae</i> (4)
			<i>Piptocephalidaceae</i> (3)
			<i>Sigmoideomycetaceae</i> (4)
			<i>Zoopagaceae</i> (7)
		<i>Zoopagales</i> genus <i>incertae sedis</i> (1)	

\*Orders/families could be listed under different subclasses in this outline. In this table, we do not indicate auxiliary (intermediate) taxonomic ranks.

### Fossil Fungi

Fossil fungi are reported in the form of dispersed spores, mycelia, sporophores, mycorrhizae, and are commonly observed in macerated residues prepared for palynological studies. Although fungal remains are encountered in the sediments of all ages, their frequency increases remarkably in the Tertiary Period. This clearly suggests that their proliferation is linked with diversification of angiosperms. Being fragmentary in nature, fossil fungi lack characteristic features that are diagnostic of extant taxa, hampering their classification with extant fungi. These are, therefore, described on the basis of morphological characters only. For example, spore taxa are based on their shape, size, symmetry, number and nature of apertures, septa and spore wall characters. On the other hand, fossil fungi (other than spores) can be assigned to their extant counterpart (up to order/family level).



Artificial classification systems for fungal spores have been proposed by Van der Hammen (1954), Clarke (1965) and Elsik (1968). Pirozynski & Weresub (1979) suggested the use of the 'Saccardoan System' for classifying fungal spore types. Kendrick & Nag Raj (1979) modified the Saccardoan System to eliminate some of its inconsistencies. This scheme is based on shape and number of cells and accordingly fungal spores are recognized under *Amerosporae*, *Didymosporae*, *Phragmosporae*, *Dictyosporae*, *Helicosporae*, *Staurosporae* and *Scolecosporeae*. This system is followed here.

Fungal sporophores of various kinds commonly occur on the surface of leaves, stems and flowers of vascular plants and have been extensively recorded over the world (Cookson 1947, Dilcher 1965, Elsik 1968, Kalgutkar & Jansonius 2000, van Geel & Aptroot 2006). Some are catathecia provided with radiating rows of mycelial cells giving an appearance of tissues arranged in a radial fashion. Ascomata contain asci that are surrounded by or enclosed within protective tissues and may be globose, flask-shaped or saucer-shaped open bodies. These may or may not possess an ostiolar opening. Fossil sporophores are also placed under artificial genera. Several workers have attempted to classify and formally describe the fossil structures (Edwards 1922, Rosendahl 1943, Cookson 1947, Rao 1959, Dilcher 1965, Venkatachala & Kar 1969, Jain & Gupta 1970, Elsik 1978, Pirozynski 1978). Fossil sporophores are classified on the basis of dehiscence mode (through irregular or regular cracking pattern or by a central pore or ostiole). Other characteristic features considered for their classification are shape and margin of the sporophores, presence or absence of pores in individual cells and nature of the central part of the sporophores.

### **Slime molds**

The terms 'slime molds' or 'mycetozoans' have traditionally been used to describe motile, unicellular terrestrial predatory phagotrophs, which are capable of forming minute to relatively large spore-producing structures, referred to as fruiting bodies. The slime molds in which unicellular units aggregate to form first a *pseudoplasmodium* and then a *sporocarp* are referred to as cellular slime molds. Those organisms in which the cells remain solitary but undergo a dramatic increase in size and the number of nuclei to form a *plasmodium* and then a *sporocarp* are referred to as plasmodial slime molds (Martin & Alexopoulos 1969). Both groups are polyphyletic. They represent two peculiar life strategies, which have appeared several times in different groups of Eukaryotes (Shadwick et al. 2009, Brown & Silberman 2013). A strategy similar to what is found in cellular slime molds also occurs in the prokaryotic myxobacteria, which are sometimes predatory but never phagotrophic (Keane & Berlemann 2016). The major groups of slime molds are listed in Table 2.

The slime molds were once considered as fungi, due to the presence of spore-producing structures in their life cycle. However, as it was pointed out long ago by de Bary (1887), these similarities relate only the dispersal biology of these groups. Slime molds do not have a fungal form of life, being predominately phagotrophic, demonstrating active motility and lacking a cell wall during their trophic stages. Consequently, the slime molds cannot be assigned to the kingdom *Fungi* in a taxonomic sense, but their nomenclature remains governed by the *International Code of Nomenclature for algae, fungi, and plants*. However, an exception is *Fonticula alba* (Brown et al. 2009) which belongs to the true *Fungi* (*Nucleomycea sensu* Adl et al. 2019), being a solitary slime mold that can be considered as a fungus in the taxonomic sense.

### ***Eumycetozoa***

Among the groups of slime molds, the *Eumycetozoa* (the "true" slime molds) are the most diverse and most complex in terms of morphology. All available phylogenies support the placement of these organisms in the supergroup *Amoebozoa* (Shadwick et al. 2009, Tice et al. 2016, Kang et al. 2017) (Table 2).

The name *Eumycetozoa* was initially proposed for three groups of slime molds – the myxomycetes, dictyostelids and protostelids (Olive & Stoianovitch 1975). However, the latter

taxon appears to be polyphyletic and includes spore-forming members of several different branches of the Amoebozoa, including the *Protosporangiida*, *Protostelida sensu stricto*, *Fractovitellida*, *Cavosteliida*, *Centramoebia* and *Flabellinea* (see Table 2). This has led to the conclusion that if all the protostelids with all their non-fruiting relatives are included in the *Eumycetozoa*, the latter becomes nearly synonymous with the *Amoebozoa* (Shadwick et al. 2009). To preserve this widely used name, Kang et al. (2017) proposed including in the *Eumycetozoa* only one group of protostelids, the *Protosporangiida*, which forms a monophyletic unit with myxomycetes and dictyostelids.

In terms of botanical nomenclature, the *Protosporangiida* may be considered as the class *Ceratiomyxomycota* (Leontyev et al. 2019). Therefore, in the classification given below, we recognize three classes within the *Eumycetozoa*. These are the *Dictyosteliomycetes*, *Ceratiomyxomycetes* and *Myxomycetes*, as outlined by Leontyev et al. (2019).

**Table 2** Position of the cellular (C) and plasmodial (P) slime mold taxa in the classification of Eukaryotes, according to Adl et al. (2019)

Supergroups of Eukarya		Group of slime molds	
<i>Amoebozoa</i>	<i>Evosea</i>	<i>Eumycetozoa</i>	<i>Dictyosteliomycetes</i> (C) <i>Ceratiomyxomycetes</i> (P) = <i>Protosporangiida</i> <i>Myxomycetes</i> (P)
		<i>Protosteliida</i>	<i>Protostelium</i> (P)
		<i>Fractovitellida</i>	<i>Ceratiomyxella</i> (P) <i>Nematostelium</i> (P) <i>Schizoplasmodium</i> (P) <i>Soliformovum</i> (P)
		<i>Cavosteliida</i>	<i>Cavostelium</i> (P) <i>Schizoplasmodiopsis</i> (P) <i>Tychosporium</i> (P)
	<i>Tubulinea</i>	<i>Euamoebida</i>	<i>Copromyxa</i> (C)
	<i>Discosea</i>	<i>Centramoebia</i>	<i>Endostelium</i> (P) <i>Luapelamoeba</i> (P) <i>Protosteliopsis</i> (P)
		<i>Flabellinea</i>	<i>Vannella</i> (P)
<i>Discoba</i>	<i>Heterolobosea</i>	<i>Tetramitia</i>	<i>Acrasidae</i> (C)
<i>Obazoa</i>	<i>Opisthokonta</i>	<i>Nucleomycea</i>	<i>Fonticulida</i> (C)
<i>Sar</i>	<i>Alveolata</i>	<i>Ciliata</i>	<i>Sorogena</i> (C)
	<i>Rhizaria</i>	<i>Guttulinopsida</i>	<i>Guttulinopsis</i> (C)
	<i>Stramenopiles</i>	<i>Sagenista</i>	<i>Sorodiplophrys</i> (C)

### ***Dictyosteliomycetes***

The dictyostelid cellular slime molds (also called dictyostelids) are common to sometimes abundant inhabitants of forest soil and leaf litter (Romeralo et al. 2013), grassland soil (Rollins et al. 2010), canopy soil (Stephenson & Landolt 1998, 2011), the soil of agricultural fields (Stephenson & Rajguru 2010) and animal dung (Stephenson & Landolt 1992), where they feed primarily on bacteria (Singh 1947, Cavender & Raper 1965a, b). Raper & Smith (1939) and Sanders et al. (2017) reported that dictyostelids can feed on pathogenic bacteria, including biofilm enmeshed bacteria produced by human and plant pathogens. Interestingly, migratory birds have been demonstrated to serve as vectors for dictyostelids (Suthers 1985), which greatly increases their potential for long-distance dispersal.

The first species of dictyostelid, *Dictyostelium mucoroides*, was isolated from horse dung and rabbit dung by Brefeld (1869). Later, a number of additional species and three additional genera (*Acytostelium*, *Coenonia* and *Polysphondylium*) were described, although one of these (*Coenonia*) has not been isolated since it was first described by van Tieghem in 1884. It is possible that this organism is not a dictyostelid. Traditionally, these four genera (if *Coenonia* is

retained), two families, and one order were classified on the basis of the morphology of the sorophore and the pattern of branching (Raper 1984, Hagiwara 1989). This type of traditional morphology-based classification was used by everyone working with dictyostelids until a phylogenetic analysis based on 18S rRNA and  $\alpha$ -tubulin gene markers indicated that the group needed a complete revision (Schaap et al. 2006, Romeralo et al. 2011, 2012), and the traditional genera did not hold together. More recently, a new classification of the class was proposed by Sheikh et al. (2018), using a single 18S rRNA gene marker. This new classification provided additional insight into the phylogeny of dictyostelids, with 12 genera, four families, and two orders currently being recognized (Table 3).

### ***Ceratiomyxomycetes***

This class unites protosteloid eumycetozoans, in which individual sporocarps may arise separately on a substrate (*Protosporangium* and *Clastostelium*), or form on a common layer of extracellular slime, which may be smooth, poroid or dissected into variously branched pillars (*Ceratiomyxa*) (Shadwick et al. 2009). This group was initially described under the zoological name *Protosporangiida* (Kang et al. 2017). The botanical name *Ceratiomyxomycetes* was proposed by Hawksworth et al. (1983) as *nom. inval.* (ICN, Art. 39.1), and later validated by Leontyev et al. (2019).

### ***Myxomycetes***

The myxomycetes (or myxogastrids, *Myxogastrea*) differ from the rest of the slime molds by their capability to form large fruiting bodies with a complicated structure, which may contain millions of spores. The traditional classification, first proposed by Masee (1892) and later developed by Martin & Alexopoulos (1969), recognized within the myxomycetes four or five orders (*Echinosteliales*, *Liceales*, *Physarales*, *Stemonitales*, and *Trichiales*) based on a number of criteria, including the presence or absence of a capillitium and lime deposits in the fruiting bodies. This classification received worldwide recognition and was applied even in the most recent monographs (e.g., Poulain et al. 2011). However, the results obtained from studies of the molecular phylogeny of myxomycetes have shown that this classification does not properly reflect evolutionary relationships within the group (Fiore-Donno et al. 2012, 2013). Based on a comprehensive review of all published phylogenies of myxomycete subgroups and the full-length 18S rDNA phylogeny of the entire group, a new classification of the class was recently proposed (Leontyev et al. 2019). In this classification, myxomycetes are divided into 13 families, nine orders, four superorders and two subclasses, the *Lucisporomycetidae* and the *Columellomycetidae* (Table 3). An additional order for the group is proposed below.

For a very long time, scientists studying myxomycetes have had a consensus about the use of botanical nomenclature (in its mycological version) for the myxomycetes. This nomenclature has been used in practically all published monographs of the group, from the late 19th century (Lister 1894) to the most recent efforts (Poulain et al. 2011). This agrees with the statement in Preamble 8 of the *International Code of Nomenclature for algae, fungi, and plants*, that the ‘slime molds’ are among the organisms for which the Code is applied (Turland et al. 2018). In contrast, the *International Code of Zoological Nomenclature* does not mention slime molds, eumycetozoans or myxomycetes (Ride et al. 1999). As indicated by Ronikier & Halamski (2018), a transfer of myxomycetes to zoological nomenclature would cause nomenclatural chaos due to the existence of numerous homonyms and the difference between nomenclatural starting points of the two Codes. Such a transfer is as well not required by theoretical reasons, since myxomycetes are neither plants or fungi, nor animals, thus none of the two existing codes can reflect their proper position in the contemporary classification of living organisms. In order to preserve nomenclatural stability we use herein botanical names for members of the *Eumycetozoa*, corresponding to the rules of ICN. The botanical name for the family *Protosporangiaceae*, which had not yet been proposed, is published below according to the requirements of ICN.

## ***Oomycota***

The *Oomycota* are a phylum of the kingdom *Straminipila* which evolved fungal characteristics – such as an osmotrophic mode of nutrition and hyphal growth – convergently to the fungal groups of the Mycota (Beakes & Thines 2017). Thus, they are traditionally studied by mycologists and also covered by ICN. Since the last comprehensive monographic treatment by Dick (2001) their classification underwent significant revision, with the latest classification before the current article being that of Beakes & Thines (2017). Based on more recent discoveries, especially regarding the early diverging oomycete lineages, this classification is updated here.

## **Aims of the study**

The main aim of this study is to compile all outlines of fungi and fungus-like groups, updated with recent findings and published data. We believe that this type of compilation will be important for scientists to have a better understanding of the limitations and the definitions of the fungal clades. For example, the classification of basal clades of fungi is debatable without a broad agreement (e.g. Humber 2016 vs. Spatafora et al. 2016 on *Entomophthoromycota* and *Glomeromycota*; Karpov et al. 2014, 2017 vs Bass et al. 2018 vs Tedersoo et al. 2018 vs Adl et al. 2019 on aphelids, rozellids and microsporidia). Moreover, recent proposals of classification in Tedersoo et al. (2018) (such as elevating lower ranks to higher ranks and demoting higher ranks to lower ranks) might also cause disagreement and thus, need to be discussed.

Fossil fungi, which is another important area of fungal taxonomy is also included in this study. We also include fungus-like organisms to emphasize the reasons why they are excluded from the fungal clade. We will launch a new web page, [outlineoffungi.org](http://outlineoffungi.org), which will provide an outline down to the level of genus for true *Fungi*, fossil fungi, and fungus-like organisms. This data will be important for many scientific disciplines such as genomics, medicine, plant pathology, novel compound discovery and biotechnology (Hyde et al. 2019).

It must always be borne in mind that the classifications being proposed now are based on only perhaps 3-8 % of the fungal species present on Earth today (Hawksworth & Lücking 2017). Any system proposed is therefore likely to be unstable and subject to change in the light of newly discovered *Fungi* or fungus-like organisms. For example, sequencing of the type species of a genus of *Gyalectaceae* for the first time supported the treatment of four genera as synonyms of *Gyalecta* (Lücking et al. 2019), while a recent re-analysis of *Dothideomycetes* following the discovery of the new genus *Tenuitholiascus* (which forms foliicolous lichens in China) found that five currently accepted orders formed a single well-supported clade (Jiang et al. 2020). The discovery of novel fungi and the sequencing of hitherto unsequenced genera can be expected to continually yield unexpected results which prompt a re-evaluation of which taxa merit recognition at particular ranks.

This outline is therefore not to be treated as a definitive, but a statement of the current situation as a basis for further discussion and in some cases future consensus. In particular, now the IBC permits lists of names to be proposed for protected status, we hope that it will be of value in working towards a protected list of generic names for fungi, updated from that of Kirk et al. (2013), which can be reviewed and in due course approved through the provisions of the Code.

## **Materials & methods**

### **True Fungi**

To list genera and other higher taxonomic ranks into a single outline, we used Kirk et al. (2008, 2013) Lumbsch & Huhndorf (2010), Humber (2012, 2016), Wijayawardene et al. (2012, 2017a, b, 2018a, b), Hyde et al. (2013, 2020), Benny et al. (2016), Jaklitsch et al. (2016a), Spatafora et al. (2016), Desirò et al. (2017), Lücking et al. (2017), Begerow et al. (2018), Kraichak et al. (2018a), Tedersoo et al. (2018), Haelewaters et al. (2019b), Species Fungorum (2019), Mapook et al. (2020) and Catalogue of Life (<http://www.catalogueoflife.org/>). Index Fungorum (2019), LIAS names (<http://liasnames.lias.net/>) and MycoBank

(<http://www.mycobank.org/>) were consulted concerning supplementary information on synonyms. We generally followed He et al. (2019) for *Basidiomycota* classification.

**Table 3** Classes, subclasses, orders and families of the Eumycetozoa with number of genera (in brackets)

Class	Subclass	Order	Family	
<i>Dictyosteliomycetes</i>		<i>Acytosteliales</i>	<i>Acytosteliaceae</i> (3)	
			<i>Cavenderiaceae</i> (1)	
		<i>Dictyosteliales</i>	<i>Dictyosteliaceae</i> (2)	
			<i>Raperosteliaceae</i> (4)	
			<i>Incertae sedis</i> (1)	
<i>Ceratiomyxomycetes</i>		<i>Ceratiomyxales</i>	<i>Ceratiomyxaceae</i> (1)	
			<i>Protosporangiidae</i> (2)	
<i>Myxomycetes</i>	<i>Lucisporomycetidae</i>	<i>Cribrariales</i>	<i>Cribrariaceae</i> (3)	
		<i>Reticulariales</i>	<i>Reticulariaceae</i> (6)	
		<i>Liceales</i>	<i>Liceaceae</i> (2)	
		<i>Trichiales</i>	<i>Dianemataceae</i> (4)	
			<i>Trichiaceae</i> (8)	
			<i>Incertae sedis</i> (4)	
	<i>Columellomycetidae</i>		<i>Echinosteliopsidales</i>	<i>Echinosteliopsidaceae</i> (1)
			<i>Echinosteliales</i>	<i>Echinosteliaceae</i> (3)
			<i>Clastodermatales</i>	<i>Clastodermataceae</i> (1)
			<i>Meridermatales</i>	<i>Meridermataceae</i> (1)
			<i>Semonitidales</i>	<i>Amaurochaetaceae</i> (7)
				<i>Semonitidaceae</i> (3)
			<i>Physarales</i>	<i>Lamprodermataceae</i> (5)
	<i>Didymiaceae</i> (4)			
	<i>Physaraceae</i> (9)			
		<i>Incertae sedis</i> (5)		

The subdivision of *Rozellomycota* at the order and family levels is redefined according to the phylogenetic relationships of the respective type genera representatives. The list of genera is updated in accordance with the acknowledged checklists (Becnel et al. 2014, Cali et al. 2017, Sokolova et al. 2018) and recent studies. In particular, genus *Kabatana* is suppressed as it was shown to be the synonym of *Inodosporus* (Stentiford et al. 2018). Genera allocation to families and higher rank taxa is modified after Wijayawardene et al. (2018a, b) using molecular phylogenetic data when available. Polyphyletic higher rank taxa are suppressed. The major clades of *Microsporidia* tree of life established by Vossbrinck and co-authors (2014) are redefined as the order-rank taxa using previously published or novel names depending upon availability of information on the type taxa.

For the classification of *Leotiomyces*, Johnston et al. (2019) and Quijada et al. (2020) are followed in the outline because the phylogenies in these papers are based on 15 loci. Ekanayaka et al. (2019) provided an alternative classification based on less genes, but more taxa and is included in the discussion to encourage positive dialogue.

### Fossil fungi

For the sake of clarity and convenience, the fossil fungal genera are split here into three parts, e.g. 1. Fossil fungal spores (according to Saccardoan System); 2. Fossil fungal sporophores, mycelia and other fungal remains; and 3. Modern fungal genera to which fossil species have been assigned. The genera are listed in three separate tables after the outline of fungi.

The data presented here have been obtained from the literature on fossil fungi published during last seven decades or so, briefly mentioned below. In order to include all records of fossil fungal remains from the Indian Tertiary sediments, published till 2005, three catalogues were

published (Lakhanpal et al. 1976, Saxena 1991, 2006). Besides, a monographic study was carried out by Saxena & Tripathi (2011) with the objective to synthesize the available information on Indian fossil fungi. This incorporates description of 152 genera and 388 species, including 15 new species and 12 new combinations, with comments wherever required. Kalgutkar & Jansonius (2000) published a synopsis of fossil fungi and tried to streamline taxonomic status of many fossil fungal genera and species. They described about 950 validly published species, attributed to approximately 300 genera. They proposed twelve new genera and about 350 new combinations. Transfers of species to more appropriate genera resulted in 31 junior homonyms, for which they provided new names. They also validated one genus and several species. In addition to the above monographic studies, data have been gathered from scores of publications, containing information on fossil fungi from all parts of the globe, published in various journals and conference proceedings.

### **Fungus-like organisms**

The classification systems used for the *Dictyosteliomycetes* and *Myxomycetes* as presented herein are based on the critical revisions of Sheikh et al. (2018) and Leontyev et al. (2019), respectively. In each paper, the taxonomy of the particular group was strongly revised on the basis of original 18S rDNA phylogenies and analyses of morphological synapomorphies.

The classification of the *Oomycota* follows the outline presented by Beakes & Thines (2017), with some modifications in accordance to recent studies (Bennett et al. 2019, Buaya et al. 2017, 2019, Buaya & Thines 2020).

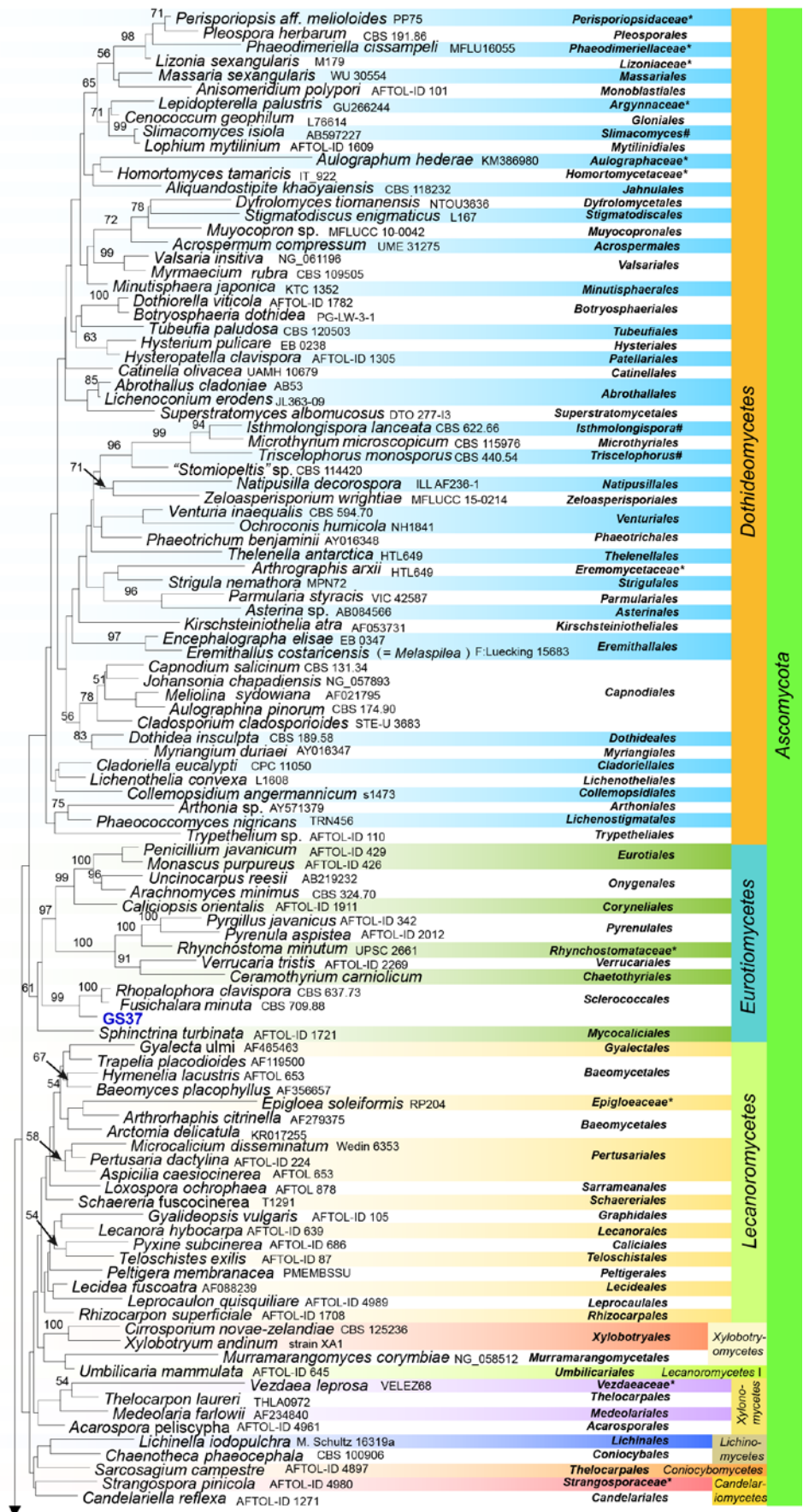
In this classification, we have included all genera of the *Eumycetozoa* accepted as valid in the nomenclatural database of Lado (2005–2019), although some of the smaller myxomycete genera will probably be incorporated into larger ones on the basis of phylogenetic data (Leontyev et al. 2019). This is likely to be the case for such genera as *Arcyodes*, *Badhamia*, *Collaria*, *Colloderma*, *Cornuvia*, *Elaeomyxa*, *Metatrichia*, *Diacheopsis*, *Listerella*, *Oligonema* and *Semimorula*.

A resurrection of the forgotten order *Echinosteliopsidales* is proposed herein, based on the 18S rDNA phylogeny of *Columellomycetidae*, which includes *Echinosteliopsis oligospora* together with a number of environmental sequences, obtained in three different studies (Shchepin et al. 2019).

All authors listed contributed information and comments to this work, but the inclusion of their names does not imply that all necessarily support all details of the outline presented. Notes are provided for recently introduced genera as well as changes in classification (marked with an asterisk in the outline). The authors of each note are indicated in brackets, after the notes.

### **Phylogenetic analyses**

To build a reference phylogeny, we utilized information from four genes, 18S rRNA, 28S rRNA, RPB1 and RPB2. We used the initial set of 18S and 28S reference sequences from 1) James et al. (2006) and supplemented by Tedersoo et al. (2017); 2) and at least one representative sequence of each recognized order or order-level taxon, or orphan taxon as based on Tedersoo et al. (2018) and classification of this study. Order and family representatives were selected based on their type status, presence of all four genes, and length of the genes. The nucleotide sequences of all genes were aligned separately using MAFFT 7 (Kato & Standley 2013), followed by manual checking and editing where necessary. We took advantage of the protein alignment to remove codon-switching indels and make decision about the gaps and removal of introns. We checked for severe conflicts in the phylogenies of all genes and replaced or removed 10 sequences that were obviously obtained from contaminant or misidentified taxa. The initial alignment included 441 terminal taxa, which we reduced to 433 taxa to exclude putative contaminants and taxa with ultra-long branches such as *Oedogonomyces* spp.



**Figure 1** – Maximum likelihood phylogeny of the kingdom *Fungi* based on LSU, SSU, RPB1 and RPB2 combined sequence data. Numbers above branches indicate bootstrap support. Accession numbers of terminal taxa are indicated in appendant table.

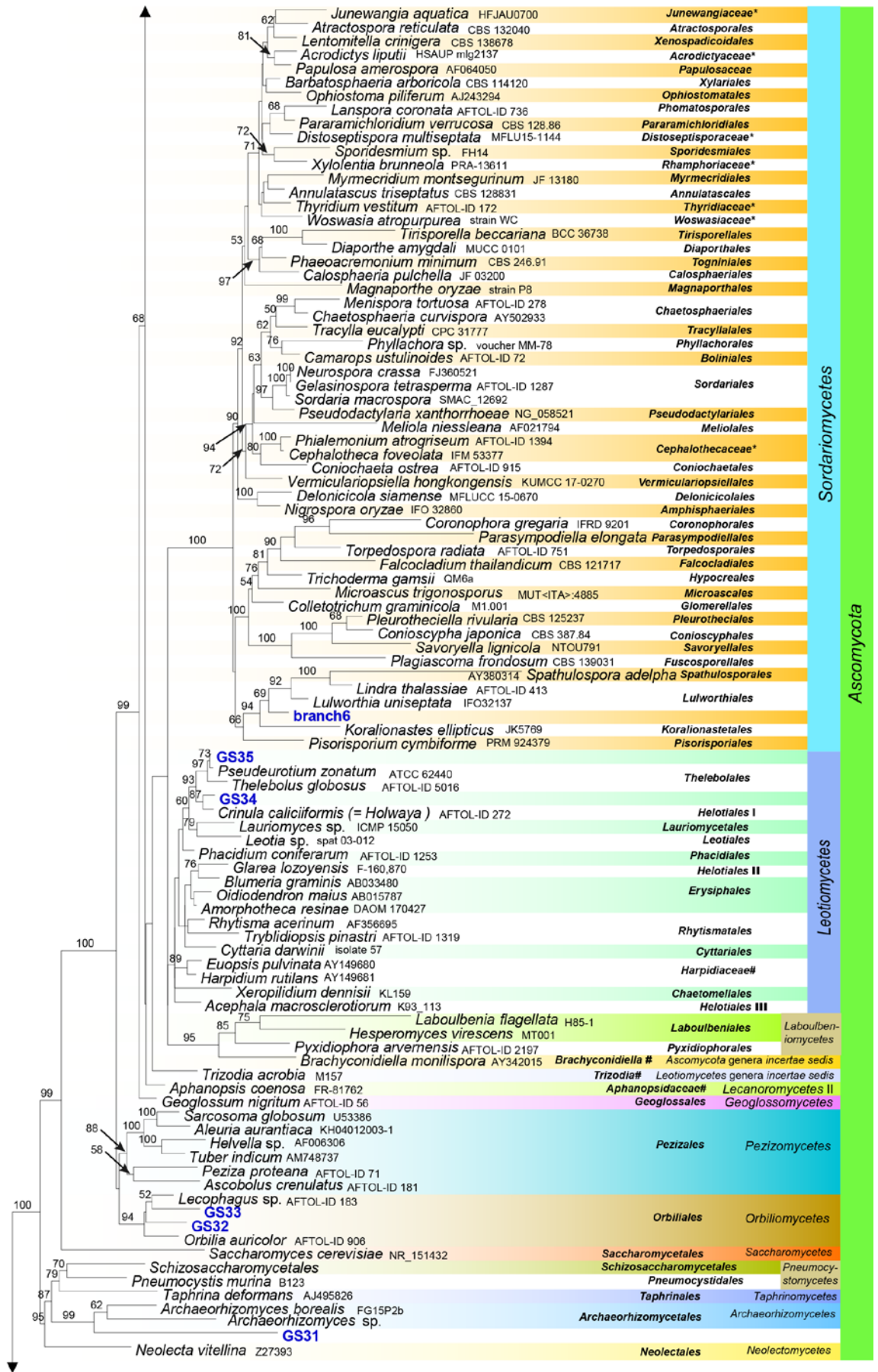


Figure 1 – Continued.



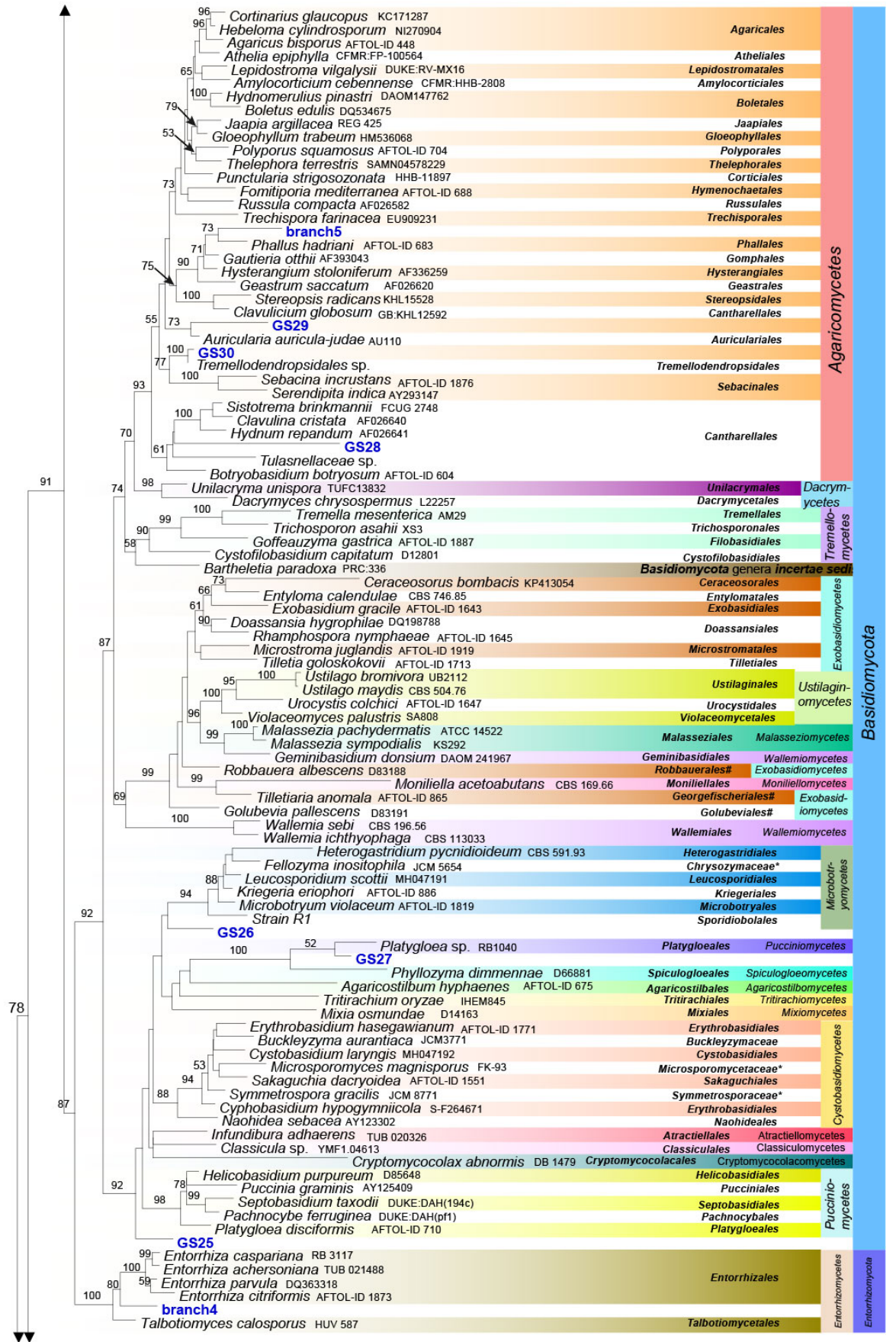


Figure 1 – Continued.

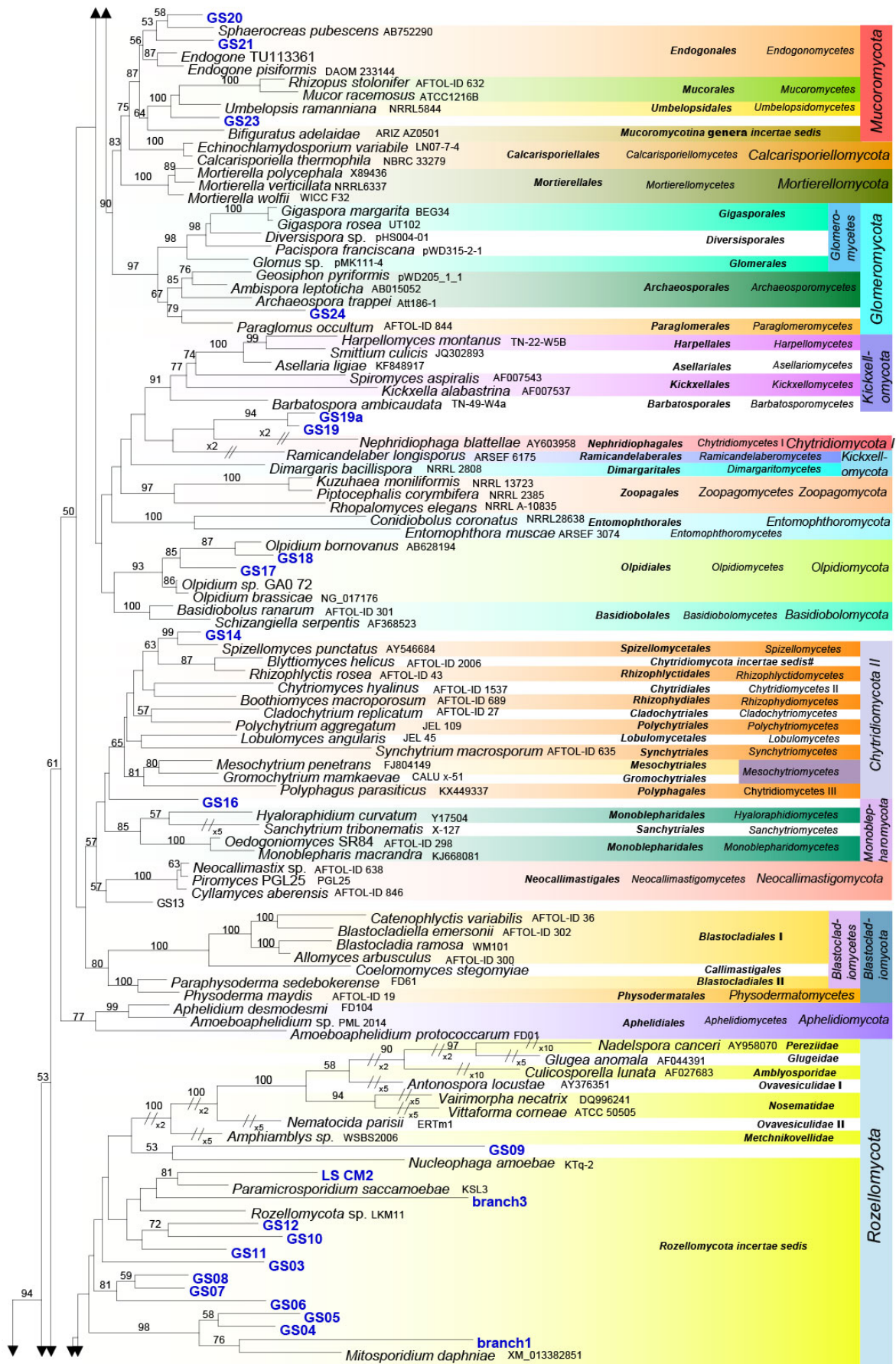
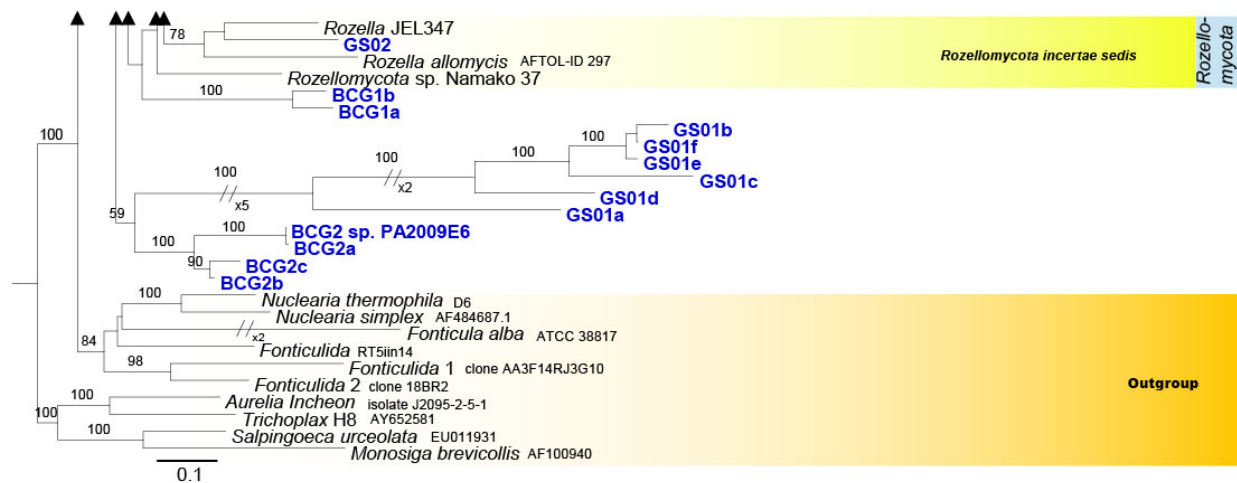


Figure 1 – Continued.



**Figure 1** – Continued.

## Results

### Taxonomy

*Helicobolomyces cinnabarinula* (Müll. Arg.) Wijayaw. & Ertz, comb. nov.

Bas. *Arthonia cinnabarinula* Müll. Arg., Flora, Regensburg 64: 234 (1881).

Syn. nov. *Helicobolomyces lichenicola* Matzer, in Grube, Matzer & Hafellner, Lichenologist 27: 28 (1995).

IF Registration Identifier: 555393

Description: Grube et al. (1995).

*Redonographaceae* (Lücking, Tehler & Lumbsch) Lumbsch, stat nov.

Bas.: *Redonographoideae* Lücking, Tehler & Lumbsch, Am. J. Bot. 100: 846 (2013)

IF Registration Identifier: 555399

Description: Lücking et al. (2013)

*Amblyosporida* Tokarev & Issi, ord. nov.

IF Registration Identifier: 555592

Monophyletic group represented by *Amblyosporidae* (type genus *Amblyospora*) and related taxa, based on SSU rRNA gene phylogeny, corresponding to Clade 1 (Vossbrinck et al. 2014). Life cycles are diverse, either monomorphic (one type of sporogony) or dimorphic (two types of sporogony within the same or different hosts). Additional sporogonial sequences may also be present. Parasites of aquatic insects and crustaceans with rare exceptions of terrestrial insects (*Multilamina* in termites).

Order type: *Amblyosporidae* Weiser emend. Tokarev & Issi

*Neoperezziida* Tokarev & Issi, ord. nov.

IF Registration Identifier: 555594

Monophyletic group represented by *Neoperezziidae* (type genus *Neoperezia*) and related taxa, based on SSU rRNA gene phylogeny, corresponding to Clade 3 (Vossbrinck et al. 2014). Life cycles are diverse, either monomorphic (one type of sporogony) or dimorphic (two types of sporogony within the same or different hosts). Additional sporogonial sequences may also be present. Parasites of bryozoans, insects, crustaceans and human (*Anncaliia*, *Tubulinosema*).

Order type: *Neoperezziidae* Voronin emend. Issi, Tokarev, Seliverstova & Voronin

***Ovavesiculida*** Tokarev & Issi, ord. nov.

IF Registration Identifier: 555610

Monophyletic group represented by *Ovavesiculidae* (type genus *Ovavesicula*) and related taxa, based on SSU rRNA gene phylogeny, corresponding to Clade 2 (Vossbrinck et al. 2014). Life cycles are diverse, either monomorphic (one type of sporogony) or dimorphic (two types of sporogony within the same or different hosts). Parasites of aquatic and terrestrial insects.

Order type: *Ovavesiculidae* Tokarev & Issi

***Protosporangiaceae*** Leontyev, Stephenson, Schnittler, Shchepin, Novozhilov, fam. nov.

Mycobank number: MB 833618

Typus: *Protosporangium* L.S. Olive & Stoian., J. Protozool. 19(4): 563 (1972)

*Sporocarps* stalked, arise separately on a substrate with no common structures, formed by extracellular slime. *Stalk* long, delicate, strait, flexuous or bent at one or several articulations. Apical portion of the stalk thin (*Protosporangium*) or inflated, banana-shaped (*Clastostelium*). *Spores* in clusters from two, four or eight units, spherical, hemispherical or compressed to each other to form quarter-spheres. *Plasmodium* colorless.

## Outline of fungi

***Aphelidiomycota*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Aphelidiomycetes*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Aphelidiales*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Aphelidiaceae*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

*Amoeboaphelidium* Scherff. (5)

*Aphelidium* Zopf (7)

*Paraphelidium* Karpov, Moreira, López-García (2)

*Pseudaphelidium* Schweikert & Schnepf (1)

***Ascomycota*** Caval.-Sm.

***Pezizomycotina*** O.E. Erikss. & Winka

***Arthoniomycetes*** O.E. Erikss. & Winka

***Arthoniales*** Henssen ex D. Hawksw. & O.E. Erikss.

***Andreiomycetaceae*** B.P. Hodk. & Lendemmer

*Andreiomyces* B.P. Hodk. & Lendemmer (2)

***Arthoniaceae*** Reichenb. ex Reichenb.

*Amazonomyces* Bat. (2)

*Arthonia* Ach. (ca. 50 + c. 300 orphaned)

*Arthothelium* A. Massal. (10 + ca. 100 orphaned)

*Briancoppinsia* Diederich, Ertz, Lawrey & van den Boom (1)

*Coniangium* Fr. (4)

*Coniarthonia* Grube (12)

*Coniocarpon* DC. (6)

*Crypthonia* Frisch & G. Thor (16)

*Cryptophaea* Van den Broeck & Ertz (1)

*Cryptothecia* Stirt. (ca. 65)

*Eremothecella* Syd. & P. Syd. (8)

*Glomerulophoron* Frisch, Ertz & G. Thor (2)  
*Herpothallon* Tobler (ca. 50)  
*Inoderma* (Ach.) Gray (4)  
*Leprantha* Dufour ex Körb. (1)  
*Myriostigma* Kremp. (7)  
*Pachnolepia* A. Massal. (1)  
*Reichlingia* Diederich & Scheid. (4)  
*Snippocia* Ertz, Kukwa & Sanderson (1)\*  
*Sporodophoron* Frisch (4)  
*Staurospora* Grube (1)  
*Stirtonia* A.L. Sm. (ca. 25)  
*Tylophoron* Nyl. ex Stizenb. (8 + 3 orphaned in *Sporodochiolichen* Aptroot & Sipman)

***Chrysotrichaceae*** Zahlbr.

*Chrysothrix* Mont. (ca. 18)  
*Galbinothrix* Frisch, G. Thor, K.H. Moon & Y. Ohmura (1)\*  
*Melarthonis* Frisch & G. Thor (1)

***Lecanographaceae*** Ertz, Tehler, G. Thor & Frisch

*Alyxoria* Ach. (12)  
*Heterocyphelium* Vain. (2)  
*Lecanographa* Egea & Torrente (ca. 40)  
*Mixtoconidium* Etayo (2)  
*Phacographa* Hafellner (3)  
*Plectocarpon* Fée (ca. 40)  
*Zwackhia* Körb. (6)

***Opegraphaceae*** Körb. ex Stizenb.

*Combea* De Not. (2)  
*Dictyographa* Müll. Arg. (2)  
*Dolichocarpus* R. Sant. (2)  
*Fouragea* Trevis. (4)  
*Ingaderia* Darb. (3)  
*Llimonaea* Egea & Torrente (4)  
*Nyungwea* Sérus., Eb. Fisch. & Killmann (3)  
*Opegrapha* Ach. (= *Kalaallia* Alstrup & D. Hawksw.) (ca. 100 + ca. 200 orphaned)  
*Paraingaderia* Ertz & Tehler (1)  
*Paralecanographa* Ertz & Tehler (1)  
*Paraschismatomma* Ertz & Tehler (1)  
*Pentagenella* Darb. (5)  
*Schizopelte* Th. Fr. (4)  
*Sclerophyton* Eschw. (ca. 15)  
*Sparria* Ertz & Tehler (2)

***Roccellaceae*** Chevall.

*Ancistrosporella* G. Thor (3)  
*Austrographa* Sparrius, Elix & A.W. Archer (3)  
*Austroroccella* Tehler & Ertz (1)  
*Chiodecton* Ach. (ca. 22)  
*Cresponea* Egea & Torrente (21)  
*Crocellina* Tehler & Ertz (1)  
*Dendrographa* Darb. (7)

*Dichosporidium* Pat. (8)  
*Dirina* Fr. (13)  
*Diromma* Ertz & Tehler (1)  
*Enterodictyon* Müll. Arg. (2)\*  
*Enterographa* Fée (ca. 30 and 25 orphaned)  
*Erythrodecton* G. Thor (3)  
*Follmanniella* Peine & Werner (1)  
*Gorgadesia* Tav. (1)  
*Graphidastra* (Redinger) G. Thor (4)  
*Gyrographa* Ertz & Tehler (3)  
*Gyronactis* Ertz & Tehler (2)  
*Halographis* Kohlm. & Volkm.-Kohlm. (1)  
*Haplodina* Zahlbr. (3)  
*Isalonactis* Ertz, Tehler, Eb. Fisch., Killmann, Razafindr. & Sérus. (1)  
*Lecanactis* Körb. (ca. 30)  
*Mazosia* A. Massal. (27)  
*Neosergipea* M. Cáceres, Ertz & Aptroot (3)  
*Ocellomma* Ertz & Tehler (1)  
*Protoroccella* Follmann ex Follmann (2)  
*Pseudolecanactis* Zahlbr. (1)  
*Pseudoschismatomma* Ertz & Tehler (1)  
*Psoronactis* Ertz & Tehler (1)  
*Pulvinodecton* Henssen & G. Thor (2)  
*Roccella* DC. (32)  
*Roccellina* Darb. (29 + 5 orphaned in *Sigridea*)  
*Sagenidiopsis* R.W. Rogers & Hafellner (4)  
*Schismatomma* Flot. & Körb. ex A. Massal. (10)  
*Sigridea* Tehler (6)  
*Simonyella* J. Steiner (1)  
*Sipmania* Egea & Torrente (1)  
*Streimannia* G. Thor (1)  
*Syncesia* Taylor (ca. 25)  
*Tania* Egea, Torrente & Sipman (2)  
*Vigneronia* Ertz (3)

***Roccellographaceae*** Ertz & Tehler

*Dimidiographa* Ertz & Tehler (3)  
*Fulvophyton* Ertz & Tehler (6)  
*Roccellographa* J. Steiner (4)

***Arthoniales*** genera *incertae sedis*

*Angiactis* Aptroot & Sparrius (3)  
*Arthophacopsis* Hafellner (1)  
*Bactrospora* A. Massal. (35)  
*Bryostigma* Poelt & Döbbeler (3)  
*Catarraphia* A. Massal. (1)  
*Felipes* Frisch & G. Thor (1)  
*Glyphopsis* Aptroot (1)  
*Gossypiothallon* Aptroot (1)  
*Helminthocarpon* Fee (3)  
*Hormosphaeria* Lév. (1)  
*Minksia* Müll. Arg. (2)

*Nipholepis* Syd. (1)  
*Paradoxomyces* Matzer (1)  
*Perigrapha* Hafellner (5)  
*Phacothecium* Trevis. (1)  
*Phoebus* R.C. Harris & Ladd (1)  
*Sporostigma* Grube (1)  
*Synarthonia* Müll. Arg. (5)  
*Synarthothelium* Sparrius (2)  
*Tarbertia* Dennis (1)  
*Trichophyma* Rehm (2)  
*Tylophorella* Vain. (1)  
*Wegea* Aptroot & Tibell (1)

***Lichenostigmatales*** Ertz, Diederich & Lawrey

***Phaeococcomycetaceae*** McGinnis & Schell

*Etayoa* Diederich & Ertz (1)  
*Lichenostigma* Hafellner (= *Phaeosporobolus* D. Hawksw. & Hafellner) (5 and 26 orphaned species)  
*Phaeococcomyces* de Hoog (5)

***Candelariomycetes*** Voglmayr & Jaklitsch

***Candelariomycetidae*** Timdal & M. Westb.

***Candelariales*** Miądl., Lutzoni & Lumbsch

***Candelariaceae*** Hakul.

*Candelaria* A. Massal. (7)  
*Candelariella* Müll. Arg. (ca. 50)  
*Candelina* Poelt (3)  
*Placomaronea* Räsänen (6)

***Pycnoraceae*** Bendiksby & Timdal

*Pycnora* Hafellner (3)

***Coniocybomycetes*** M. Prieto & Wedin

***Coniocybales*** M. Prieto & Wedin

***Coniocybaceae*** Rchb.

*Chaenotheca* (Th. Fr.) Th. Fr. (ca. 25)  
*Sclerophora* Chevall. (6)

***Dothideomycetes sensu*** O.E. Erikss & Winka

***Dothideomycetidae*** P.M. Kirk, P.F. Cannon, J.C. David & Stalpers ex C.L. Schoch, Spatafora, Crous & Shoemaker

***Capnodiales*** Woron.

***Aeminiaceae*** J. Trovão, I. Tiago & A. Portugal

*Aeminium* J. Trovão, I. Tiago & A. Portugal (1)

***Antennulariellaceae*** Woron.

*Achaetobotrys* Bat. & Cif. (1)  
*Antennulariella* Woron. (1)  
*Eumela* Syd. (4)

***Capnodiaceae*** (Sacc.) Höhn. ex Theiss.

*Capnodium* Mont. (83)

*Chaetocapnodium* Hongsanan & K.D. Hyde (1)  
*Conidiocarpus* Woron. (= *Phragmocapnias* Theiss. & Syd.) (ca. 10)  
*Fumiglobus* D.R. Reynolds & G.S. Gilbert (10)  
*Leptoxyphium* Speg. (19)  
*Limaciniaseta* D.R. Reynolds (1)  
*Readeriellipsoides* Crous & Decock (2)  
*Scoriadopsis* Mend. (1)  
*Scorias* Fr. (11)

**Cladosporiaceae** Chalm. & R.G. Archibald

*Acroconidiella* J.C. Lindq. & Alippi (5)  
*Cladosporium* Link (237 accepted species, 631 legitimate names at species level)  
*Davidiellomyces* Crous (2)  
*Graphiopsis* Trail (11)  
*Neocladosporium* J.D.P. Bezerra, Sandoval-Denis, C.M. Souza-Motta & Crous (1)  
*Rachicladosporium* Crous, U. Braun & C.F. Hill (14)  
*Toxicocladosporium* Crous & U. Braun (14)  
*Verrucocladosporium* K. Schub., Aptroot & Crous (2)

**Cystocoleaceae** Locq. ex Lücking, B.P. Hodk. & S.D. Leav.

*Cystocoleus* A. Massal. (1)

**Dissoconiaceae** Crous & de Hoog

*Dissoconium* de Hoog, Oorschot & Hijwegen (5)  
*Globoramichloridium* Y. Marín & Crous (1)  
*Pseudoveronaea* Crous & Batzer (2)  
*Ramichloridium* Stahel ex de Hoog (35)  
*Uwebraunia* Crous & M.J. Wingf. (7)

**Euantennariaceae** Hughes & Corlett

*Capnokyma* S. Hughes (2)  
*Euantennaria* Speg. (9)  
*Hormisciomyces* Bat. & Nascim. (3)  
*Plokamidomyces* Bat., C.A.A. Costa & Cif. (1)  
*Rasutoria* M.E. Barr (2)  
*Strigopodia* Bat. (2)  
*Trichothallus* F. Stevens (2)

**Extremaceae** Quaedvl. & Crous (= *Paradevriesiaceae* Crous)\*

*Castanedospora* G. Delgado & A.N. Mill. (1)\*  
*Extremus* Quaedvl. & Crous (2)  
*Paradevriesia* Crous (3)  
*Petrophila* de Hoog & Quaedvl. (1)\*  
*Pseudoramichloridium* Cheew. & Crous (3)  
*Saxophila* Selbmann & de Hoog (1)\*  
*Staninwardia* B. Sutton (2)  
*Vermiconidia* Egidi & Onofri (= *Vermiconia* Egidi & Onofri) (4)\*

**Johansoniaceae** Doilom, Phook. & K.D. Hyde

*Johansonia* Sacc. (13)  
*Orthobellus* Silva & Cavalc. (3)



***Metacapnodiaceae*** Hughes & Corlett

*Capnobotrys* S. Hughes (10)

*Hyphosoma* Syd. (6)

*Metacapnodium* Speg. (14)

***Mycosphaerellaceae*** Lindau

*Acervuloseptoria* Crous & Jol. Roux (2)

*Amycosphaerella* Quaedvl. & Crous (2)

*Annellosympodiella* Crous & Assefa (1)

*Apseudocercosporella* Videira & Crous (1)

*Asperisporium* Maubl. (24)

*Australosphaerella* Videira & Crous (1)

*Brunneosphaerella* Crous (3)

*Brunswickiella* Videira & Crous (1)

*Camptomeriphila* Crous & M.J. Wingf. (1)

*Caryophylloseptoria* Verkley, Quaedvl. & Crous (4)

*Catenulocercospora* C. Nakash., Videira & Crous (1)

*Cercoramularia* Videira, H.D. Shin, C. Nakash. & Crous (1)

*Cercospora* Fresen. (ca. 1125)

*Cercosporella* Sacc. (ca. 100)

*Cercosporidium* Earle (ca. 10)

*Chuppomyces* Videira & Crous (1)

*Claro Hilum* Videira & Crous (1)

*Clypeosphaerella* Guatim., R.W. Barreto & Crous (3)

*Collapsimycopappus* A. Hashim., Y. Harada & Kaz. Tanaka (1)

*Collarispora* Videira & Crous (1)

*Coremiopassalora* U. Braun, C. Nakash., Videira & Crous (2)

*Cytostagonospora* Bubák (5)

*Deightonomyces* Videira & Crous (1)

*Devonomyces* Videira & Crous (1)

*Dictyosporina* L.M. Abreu, R.F. Castañeda & O.L. Pereira (1)

*Distocercospora* N. Pons & B. Sutton (4)

*Distocercosporaster* Videira, H.D. Shin, C. Nakash. & Crous (1)

*Distomycovellosiella* U. Braun, C. Nakash., Videira & Crous (1)

*Dothistroma* Hulbary (5)

*Epicoleosporium* Videira & Crous (1)

*Exopassalora* Videira & Crous (1)

*Exosporium* Link (123)

*Exutisphaerella* Videira & Crous (1)

*Filiella* Videira & Crous (1)

*Fulvia* Cif. (2)\*

*Fusoidiella* Videira & Crous (2)

*Graminopassalora* U. Braun, C. Nakash., Videira & Crous (1)

*Hyalocercosporidium* Videira & Crous (1)

*Hyalozasmidium* U. Braun, C. Nakash., Videira & Crous (2)

*Janetia* M.B. Ellis (22)

*Lecanosticta* Syd. (8)

*Madagascaromyces* U. Braun, C. Nakash., Videira & Crous (1)

*Microcyclosporella* J. Frank, Schroers & Crous (1)

*Micronematomyces* U. Braun, C. Nakash., Videira & Crous (2)

*Miuraea* Hara (1)

*Mycodiella* Crous (3)

*Mycosphaerelloides* Videira & Crous (1)  
*Mycovellosiella* Rangel (ca. 34)  
*Neoceratosperma* Crous & Cheew. (6)  
*Neocercospora* Bakhshi, Arzanlou, Babai-ahari & Crous (1)  
*Neocercosporidium* Videira & Crous (1)  
*Neodeightoniella* Crous & W.J. Swart (1)  
*Neomycosphaerella* Crous (1)  
*Neopenidiella* Quaedvl. & Crous (1)  
*Neophloeospora* U. Braun, C. Nakash., Videira & Crous (1)  
*Neopseudocercospora* Crous (2)  
*Neopseudocercosporella* Videira & Crous (2)  
*Neoramichloridium* Phook., Thambug. & K.D. Hyde (1)  
*Neoseptoria* Quaedvl., Verkley & Crous (1)  
*Nothopassalora* U. Braun, C. Nakash., Videira & Crous (1)  
*Nothopericoniella* Videira & Crous (1)  
*Nothophaeocryptopus* Videira, C. Nakash. & Crous (1)  
*Pachyramichloridium* Videira & Crous (1)  
*Pallidocercospora* Crous (9)  
*Pantospora* Cif. (1)  
*Paracercospora* Deighton (5)  
*Paracercosporidium* Videira & Crous (2)  
*Paramycosphaerella* Crous & Jol. Roux (17)  
*Paramycovellosiella* Videira, H.D. Shin & Crous (1)  
*Parapallidocercospora* Videira, Crous, U. Braun & C. Nakash. (2)  
*Passalora* Fr. (ca. 250)  
*Phaeocercospora* Crous (2)  
*Phaeophleospora* Rangel (31)  
*Phaeoramularia* Munt.-Cvetk. (ca. 10)  
*Phloeospora* Wallr. (141)  
*Piricauda* Bubák (31)\*  
*Pleopassalora* Videira & Crous (2)  
*Pleuropassalora* U. Braun, C. Nakash., Videira & Crous (1)  
*Pluripassalora* Videira & Crous (1)  
*Plurivorosphaerella* O. Hassan & T.H. Chang (1)  
*Polyphialoseptoria* Quaedvl., R.W. Barreto, Verkley & Crous (2)  
*Polythrincium* Kunze (5)  
*Protostegia* Cooke (2)  
*Pseudocercospora* Speg. (ca. 1000)  
*Pseudocercosporella* Deighton (127)  
*Pseudopericoniella* Videira & Crous (1)  
*Pseudophaeophleospora* C. Nakash., Videira & Crous (2)  
*Pseudozasmidium* Videira & Crous (4)  
*Ragnhildiana* Solheim (18)  
*Ramularia* Unger (100<)  
*Ramulariopsis* Speg. (4)  
*Ramulispora* Miura (18)  
*Rhachisphaerella* U. Braun, C. Nakash., Videira & Crous (1)  
*Rosisphaerella* Videira & Crous (1)  
*Ruptoseptoria* Quaedvl., Verkley & Crous (1)  
*Scolecostigmia* U. Braun (23)  
*Septoria* Sacc. (= *Septocyta* Petr. *fide* Quaedvlieg et al. 2013) (200<)  
*Sonderhenia* H.J. Swart & J. Walker (2)

*Sphaerulina* Sacc. (65)  
*Stromatoseptoria* Quaedvl., Verkley & Crous (1)  
*Sultanimyces* Videira & Crous (1)  
*Trochophora* R.T. Moore (2)  
*Uwemyces* Hern.-Restr., Sarria & Crous (1)  
*Virosphaerella* Videira & Crous (3)  
*Xenomycosphaerella* Quaedvl. & Crous (3)  
*Xenopassalora* Crous (1)  
*Xenoramularia* Videira, H.D. Shin & Crous (3)  
*Xenosonderhenia* Crous (2)  
*Xenosonderhenioides* Videira & Crous (1)  
*Zasmidium* Fr. (= *Periconiella* Sacc. *fide* Quaedvlieg et al. 2013) (ca. 150)  
*Zymoseptoria* Quaedvl. & Crous (8)

***Neodevriesiaceae*** Quaedvl. & Crous

*Neodevriesia* Quaedvl. & Crous (21)  
*Tripospermum* Speg. (27)

***Phaeothecaceae*** Darveaux

*Phaeotheca* Sigler, Tsuneda & J.W. Carmich. (4)

***Phaeothecoidiellaceae*** K.D. Hyde & Hongsanan (= *Nowamycetaceae* Crous)

*Chaetothyria* Theiss. (6)  
*Exopassalora* Videira & Crous (1)  
*Houjia* G.Y. Sun & Crous (2)  
*Nowamyces* Crous (2)  
*Phaeothecoidiella* Batzer & Crous (2)  
*Rivilata* Kohlm., Volkm.-Kohlm. & O.E. Erikss. (1)  
*Sporidesmajora* Batzer & Crous (1)  
*Translucidithyrium* X.Y. Zeng & K.D. Hyde (1)

***Piedraiaceae*** Viégas ex Cif., Bat. & S. Camposa

*Piedraia* Fons. & Leao (2)

***Racodiaceae*** Link

*Racodium* Fr. (5)

***Schizothyriaceae*** Höhn. ex Trotter, Sacc., D. Sacc. & Traverso

*Amazonotheca* Bat. & H. Maia (2)\*  
*Hexagonella* F. Stevens & Guba ex F. Stevens (1)  
*Kerniomyces* Toro (1)  
*Lecideopsella* Höhn. (10)  
*Metathyriella* Syd. (3)  
*Mycerema* Bat., J.L. Bezerra & Cavalc. (1)  
*Myriangiella* Zimm. (5)  
*Plochmopeltis* Theiss. (5)  
*Schizothyrium* Desm. (40)  
*Vonarxella* Bat., J.L. Bezerra & Peres (1)

***Teratosphaeriaceae*** Crous & U. Braun

*Acidiella* Hujslová & M. Kolařík (3)

*Acidomyces* B.J. Baker, M.A. Lutz, S.C. Dawson, P.L. Bond & Banfield ex Selbmann, de Hoog & De Leo (2)  
*Acrodontium* de Hoog (17)  
*Apenidiella* Quaedvl. & Crous (1)  
*Araucasphaeria* Crous & M.J. Wingf. (1)  
*Aulographina* Arx & E. Müll. (2)  
*Austroafricana* Quaedvl. & Crous (3)  
*Austrostigmidium* Pérez-Ort. & Garrido-Benavent (1)  
*Batcheloromyces* Marasas, P.S. van Wyk & Knox-Dav. (5)  
*Baudoinia* J.A. Scott & Unter. (5)  
*Bryochiton* Döbbeler & Poelt (5)  
*Camarosporula* Petr. (1)  
*Capnobotryella* Sugiy. (6)  
*Catenulostroma* Crous & U. Braun (7)  
*Constantinomyces* Egidi & Onofri (4)  
*Davisoniella* H.J. Swart (1)  
*Devriesia* Seifert & N.L. Nick. (11)  
*Elasticomyces* Zucconi & Selbmann (1)  
*Eupenidiella* Quaedvl. & Crous (1)  
*Euteratosphaeria* Quaedvl. & Crous (1)  
*Friedmanniomyces* Onofri (2)  
*Hispidoconidioma* Tsuneda & Davey (2)  
*Hortaea* Nishim. & Miyaji (2)\*  
*Hyweljonesia* R.G. Shivas, Y.P. Tan, Marney & Abell (2)  
*Incertomyces* Egidi & Zucconi (2)  
*Lapidomyces* de Hoog & Stielow (1)  
*Leptomelanconium* Petr. (7)  
*Meristemomyces* Isola & Onofri (2)  
*Microcyclospora* J. Frank, Schroers & Crous (5)  
*Monticola* Selbmann & Egidi (1)  
*Myrtapenidiella* Quaedvl. & Crous (8)  
*Neocatenulostroma* Quaedvl. & Crous (3)  
*Neophaeothecoidea* Quaedvl. & Crous (1)  
*Neotrimmatostroma* Quaedvl. & Crous (3)  
*Oleoguttula* Selbmann & de Hoog (1)  
*Pachysacca* Syd. (3)  
*Parapenidiella* Crous & Summerell (2)  
*Parateratosphaeria* Quaedvl. & Crous (6)  
*Penidiella* Crous & U. Braun (4)  
*Penidiellomyces* Crous, Attili-Angelis, A.P.M. Duarte, Pagnocca & J.Z. Groenew. (2)  
*Penidiellopsis* Sand.-Den., Gené, Deanna A. Sutton & Guarro (2)  
*Phaeothecoidea* Crous (5)  
*Placocrea* Syd. (1)\*  
*Pseudotaeniolina* J.L. Crane & Schokn. (2)  
*Pseudoteratosphaeria* Quaedvl. & Crous (6)  
*Queenslandipenidiella* Quaedvl. & Crous (1)  
*Readeriella* Syd. & P. Syd. (ca. 23)  
*Recurvomyces* Selbmann & de Hoog (1)  
*Simplicidiella* Crous, Attili-Angelis, A.P.M. Duarte, Pagnocca & J.Z. Groenew. (1)  
*Stenella* Syd. (ca. 45)  
*Suberoteratosphaeria* Quaedvl. & Crous (3)  
*Teratoramularia* Videira, H.D. Shin & Crous (4)

*Teratosphaeria* Syd. & P. Syd. (58)  
*Teratosphaericola* Quaedvl. & Crous (1)  
*Teratosphaeriopsis* Quaedvl. & Crous (1)  
*Xanthoricola* D. Hawksw. (1)  
*Xenoconiothyrium* Crous & Marinc. (1)  
*Xenopenidiella* Quaedvl. & Crous (7)  
*Xenophacidiella* Crous (1)  
*Xenoteratosphaeria* Quaedvl. & Crous (1)

***Xenodevriesiaceae*** Crous

*Xenodevriesia* Crous (1)

***Capnodiales*** genera *incertae sedis*

*Arthrocatena* Egidi & Selbmann (1)  
*Catenulomyces* Egidi & de Hoog (1)  
*Eriosporella* Höhn. (2)  
*Hyphoconis* Egidi & Quaedvl. (1)  
*Mucomyosphaerella* Quaedvl. & Crous (1)  
*Mycophycias* Kohlm. & Volkm.-Kohlm  
*Neohortaea* Quaedvl. & Crous (1)  
*Perusta* Egidi & Stielow (1)  
*Plurispermopsis* Pereira-Carv., Inácio & Dianese (1)  
*Pseudoepicoccum* M.B. Ellis (4)  
*Racoleus* R. Sant. & D. Hawksw. (1)  
*Ramimonilia* Stielow & Quaedvl. (1)  
*Ramopenidiella* Crous & R.G. Shivas (1)  
*Rosaria* N. Carter (2)

***Dothideales*** Lindau (= *Neocelosporiales* Crous)

***Dothideaceae*** Chevall.

*Delphinella* (Sacc.) Kuntze (7)  
*Dictyodothis* Theiss. & Syd. (8)  
*Dothidea* Fr. (ca. 20)  
*Dothiora* Fr. (50<)  
*Endoconidioma* Tsuneda (2)  
*Endodothiora* Petr. (1)  
*Kabatina* R. Schneid. & Arx (5)  
*Neocylindroseptoria* Thambug. & K.D. Hyde (1)  
*Phaeocryptopus* Naumov (6)  
*Plowrightia* Sacc. (50)  
*Stylodothis* Arx & E. Müll. (2)  
*Sydowia* Bres. (11)  
*Uleodothis* Theiss. & Syd. (4)

***Neocelosporiaceae*** Crous

*Celosporium* Tsuneda & M.L. Davey (1)  
*Muellerites* L. Holm (1)  
*Neocelosporium* Crous (1)\*

***Sacotheciaceae*** Bonord.

*Aureobasidium* Viala & G. Boyer (23)  
*Columnosphaeria* Munk (4)

*Kabatiella* Bubák (19)  
*Pseudoseptoria* Speg. (8)  
*Pseudosydowia* Thambug. & K.D. Hyde (1)  
*Saccolthecium* Fr. (9)  
*Selenophoma* Maire (ca. 13)

**Zalariaceae** Visagie, Z. Humphries & Seifert  
*Zalaria* Visagie, Z. Humphries & Seifert (2)

**Dothideales** genera *incertae sedis*  
*Asteromellopsis* H.E. Hess & E. Müll. (1)  
*Botryochora* Torrend (1)  
*Coniozyma* Crous (1)  
*Hormonema* Lagerb. & Melin (7)  
*Pringsheimia* Schulzer (17)  
*Rhizosphaera* L. Mangin & Har. (8)

**Myriangiales** Starbäck  
**Elsinoaceae** Höhn. ex Sacc. & Trotter  
*Elsinoë* Racib. (ca. 40)  
*Mollerella* G. Winter (4)

**Myriangiaceae** Nyl.  
*Anhelia* Racib. (9)  
*Ascostratum* Syd. & P. Syd. (2)  
*Butleria* Sacc. (1)  
*Dictyocyclus* Sivan., W.H. Hsieh & Chi Y. Chen (1)  
*Eurytheca* De Seynes (3)  
*Hemimyriangium* J. Reid & Piroz (1)  
*Mendogia* Racib. (7)  
*Micularia* Boedijn (2)  
*Myriangium* Mont. & Berk. (ca. 10)  
*Uleomyces* P. Henn. (12)  
*Zukaliopsis* Henn. (2)

**Myriangiales** genus *incertae sedis*  
*Dictyonella* Höhn. (7)

**Pleosporomycetidae** C.L. Schoch, Spatafora, Crous & Shoemaker  
**Gloniales** Jayasiri & K.D. Hyde\*  
**Gloniaceae** (Corda) E. Boehm, C.L. Schoch & Spatafora  
*Cenococcum* Moug. & Fr. (5)  
*Glonium* Mühl. (ca. 13)  
*Purpurepithecium* Jayasiri & K.D. Hyde (2)

**Hysteriales** Lindau  
**Hysteriaceae** Chevall.  
*Actidiographium* Lar. N. Vassiljeva (1)  
*Glioniella* Sacc. (12)  
*Glioniopsis* De Not. (ca. 17)  
*Hysterium* Pers. (14)  
*Hysterobrevium* E. Boehm & C.L. Schoch (6)

*Hysterocarina* Zogg (1)  
*Hysterodiffractum* D.A.C. Almeida, Gusmão & A.N. Mill. (1)  
*Hysterozonium* Rehm ex Lindau (2)  
*Oedohysterium* E. Boehm & C.L. Schoch (3)  
*Ostreichnion* Duby (4)  
*Pseudoscypha* J. Reid & Piroz. (1)  
*Psilogonium* Höhn. (ca. 15)  
*Rhytidhysterion* Speg. (21)

***Hysteriales* genus incertae sedis**

*Graphyllum* Clem. (11)

***Mytilinidiales* E. Boehm, C.L. Schoch & Spatafora**

***Mytilinidiaceae* Kirschst.**

*Actidium* Fr. (ca. 6)  
*Lophium* Fr. (ca. 6)  
*Mytilinidion* Duby (12)  
*Ostreola* Darker (8)  
*Peyronelia* Cif. & Gonz. Frag. (6 or 7)  
*Pseudocamaropycnis* Crous (1)  
*Quasiconcha* M.E. Barr & M. Blackw. (1)  
*Septonema* Corda (ca. 15)  
*Zoggium* Lar.N. Vassiljeva (1)

***Pleosporales* Luttrell ex M.E. Barr**

***Acrocalymmaceae* Crous & Trakun.**

*Acrocalymma* Alcorn & J.A.G. Irwin (6)

***Aigialaceae* Suetrong, Sakay., E.B.G. Jones, Kohlm., Volkm.-Kohlm. & C.L. Schoch**

*Aigialus* S. Schatz & Kohlm. (5)  
*Ascocratera* Kohlm. (1)  
*Fissuroma* Jian K. Liu, Phook., E.B.G. Jones & K.D. Hyde (11)  
*Neoastrosphaeriella* Jian K. Liu, E.B.G. Jones & K.D. Hyde (3)  
*Posidoniomycetes* Vohník & Réblová (1)  
*Rimora* Kohlm., Volkm.-Kohlm., Suetrong, Sakay. & E.B.G. Jones (1)

***Amniculicolaceae* Y. Zhang ter, C.L. Schoch, J. Fourn., Crous & K.D. Hyde**

*Amniculicola* Y. Zhang ter & K.D. Hyde (4)  
*Fusiformispora* Phukhams. & K.D. Hyde (1)  
*Murispora* Y. Zhang ter, J. Fourn. & K.D. Hyde (7)  
*Neomassariosphaeria* Y. Zhang ter, J. Fourn. & K.D. Hyde (1)  
*Pseudomassariosphaeria* Phukhams., Ariyaw., Camporesi & K.D. Hyde (2)  
*Vargamyces* Tóth (1)

***Amorosiaceae* Thambug. & K.D. Hyde**

*Alfoldia* D.G. Knapp, Imrefi & Kovács (1)  
*Amorosia* Mantle & D. Hawksw. (1)  
*Amorocoelophoma* Jayasiri, E.B.G. Jones & K.D. Hyde (1)  
*Angustimassarina* Thambug., Kaz. Tanaka & K.D. Hyde (11)

***Anteagloniaceae* K.D. Hyde, Jian K. Liu & A. Mapook**

*Anteaglonium* Mugambi & Huhndorf (7)

- Flammeascoa* Phook. & K.D. Hyde (2)  
*Purplema* W. Dong, H. Zhang & K.D. Hyde (1)
- Aquasubmersaceae*** A. Hashim. & Kaz. Tanaka  
*Aquasubmersa* K.D. Hyde & Huang Zhang (2)
- Arthopyreniaceae*** W. Watson  
*Arthopyrenia* A. Massal. (= *Arthopyreniomyces* Cif. & Tomas.) (5 + ca. 100 orphaned)  
*Mycomicrothelia* Keissl. (ca. 10)\*
- Ascocylindricaceae*** Abdel-Wahab, Bahkali, E.B.G. Jones, Ariyaw. & K.D. Hyde  
*Ascocylindrica* Abdel-Wahab, Bahkali & E.B.G. Jones (1)
- Astrosphaeriellaceae*** Phook. & K.D. Hyde  
*Astrosphaeriella* Syd. & P. Syd. (ca. 10)  
*Astrosphaerellopsis* Phook., Jian K. Liu & K.D. Hyde (2)  
*Javaria* Boise (2)  
*Mycopepon* Boise (5)  
*Pithomyces* Berk. & Broome (ca. 40)  
*Pteridiospora* Penz. & Sacc. (8)  
*Quercicola* Jayasiri, E.B.G. Jones & K.D. Hyde (2)  
*Xenoastrosphaeriella* Jayasiri, E.B.G. Jones & K.D. Hyde (1)
- Bambusicolaceae*** D.Q. Dai & K.D. Hyde  
*Bambusicola* D.Q. Dai & K.D. Hyde (10)  
*Leucaenicola* Jayasiri, E.B.G. Jones & K.D. Hyde (2)  
*Palmiascoma* Phook. & K.D. Hyde (1)
- Biatriosporaceae*** K.D. Hyde  
*Biatriospora* K.D. Hyde & Borse (6)
- Camarosporiaceae*** Wanas., Wijayaw., K.D. Hyde & Crous  
*Camarosporium* Schulzer (100+)  
*Camarosporomyces* Crous (1)
- Camarosporidiellaceae*** Wanas., Wijayaw., Crous & K.D. Hyde  
*Camarosporidiella* Wanas., Wijayaw., K.D. Hyde (22)
- Caryosporaceae*** Huang Zhang, K.D. Hyde & Ariyaw.  
*Caryospora* De Not. (19)
- Coniothyriaceae*** W.B. Cooke  
*Coniothyrium* Corda (ca. 50)  
*Foliophoma* Crous (2)  
*Neoconiothyrium* Crous (3)  
*Ochrocladosporium* Crous & U. Braun (3)  
*Staurosphaeria* Rabenh. (= *Hazslinszkyomyces* Crous & R.K. Schumach.) (12)
- Corynesporascaceae*** Sivan.  
*Corynespora* Güssow (ca. 130)  
*Corynesporasca* Sivan. (1)



**Cryptocoryneaceae** A. Hashim. & Kaz. Tanaka

*Cryptocoryneum* Fuckel (ca. 20)

**Cucurbitariaceae** G. Winter (= *Fenestellaceae* M.E. Barr)

*Allocucurbitaria* Valenz.-Lopez, Stchigel, Guarro & Cano (1)

*Astragalicola* Jaklitsch & Voglmayr (2)\*

*Cucitella* Jaklitsch & Voglmayr (1)\*

*Cucurbitaria* Gray (= *Pleurostromella* Petr.) (ca. 40)

*Fenestella* Tul. & C. Tul. (ca. 4)

*Neocucurbitaria* Wanas., E.B.G. Jones & K.D. Hyde (21)

*Paracucurbitaria* Valenz.-Lopez, Stchigel, Guarro & Cano (2)

*Parafenestella* Jaklitsch & Voglmayr (3)\*

*Protofenestella* Jaklitsch & Voglmayr (1)\*

*Rhytidiella* Zalasky (4)

*Seltsamia* Jaklitsch & Voglmayr (1)\*

*Syncarpella* Theiss. & Syd. (ca. 6)

*Synfenestella* Jaklitsch & Voglmayr (2)

**Cyclothyriellaceae** Jaklitsch & Voglmayr

*Cyclothyriella* Jaklitsch & Voglmayr (1)

*Massariosphaeria* (E. Müll.) Crivelli (25)\*

**Dacampiaceae** Körb.

*Aaosphaeria* Aptroot (1)

*Dacampia* A. Massal. (15)

*Eopyrenula* R.C. Harris (6)

*Leptocucurthis* Aptroot (1)

*Pseudonitschkia* Coppins & S.Y. Kondr. (1)

*Weddellomyces* D. Hawksw. (12)

**Delitschiaceae** M.E. Barr

*Delitschia* Auersw. (ca. 50)

*Ohleriella* Earle (1)

*Semidelitschia* Cain & Luck-Allen (3)

**Diademaceae** Shoemaker & C.E. Babc.

*Diadema* Shoemaker & C.E. Babc. (8)

**Dictyosporiaceae** Boonmee & K.D. Hyde

*Aquadictyospora* Z.L. Luo, K.D. Hyde & H.Y. Su (1)

*Aquatichairospora* Kodsueb & W.H. Ho (1)

*Cheirosporium* L. Cai & K.D. Hyde (2)

*Dendryphiella* Bubák & Ranoj. (12)

*Dictyocheirospora* M.J. D'souza, Boonmee & K.D. Hyde (16)

*Dictyopalmispora* Pinruan, Boonmee & K.D. Hyde (1)

*Dictyosporium* Corda (59)

*Digitodesmium* P.M. Kirk (6)

*Gregarithecium* Kaz. Tanaka & K. Hiray. (1)

*Jalapriya* M.J. D'souza, Hong Y. Su, Z.L. Luo & K.D. Hyde (3)

*Neodendryphiella* Iturrieta-González, Dania García & Gené (3)\*

*Pseudocoleophoma* Kaz. Tanaka & K. Hiray. (3)

*Pseudoconiothyrium* Crous & R.K. Schumach. (1)

*Pseudodictyosporium* Matsush. (4)  
*Vikalpa* M.J. D'souza, Boonmee, Bhat & K.D. Hyde (4)

**Didymellaceae** Gruyter, Aveskamp & Verkley (= *Microsphaeropsidaceae* Qian Chen, L. Cai & Crous *vide* Hongsanan et al. 2020)

*Allophoma* Q. Chen & L. Cai (9)  
*Anthodidymella* Phukhams., Camporesi & K.D. Hyde (3)  
*Ascochyta* Lib. (= *Heracleicola* Tibpromma, Camporesi & K.D. Hyde) (ca. 400)  
*Boeremia* Aveskamp, Gruyter & Verkley (22)  
*Briansuttonomyces* Crous (1)  
*Calophoma* Q. Chen & L. Cai (8)  
*Chaetasbolisia* Speg. (7)  
*Cumuliphoma* Valenz.-Lopez, Stchigel, Crous, Guarro & Cano (3)  
*Didymella* Sacc. ex D. Sacc. (ca. 100)  
*Didysimulans* Tibpromma, Camporesi & K.D. Hyde (2)  
*Ectophoma* Valenz.-Lopez, Cano, Crous, Guarro & Stchigel (2)  
*Epicoccum* Link (16)  
*Heterophoma* Q. Chen & L. Cai (6)  
*Juxtiphoma* Valenzuela-Lopez, Cano, Crous, Guarro & Stchigel (1)  
*Leptosphaerulina* McAlpine (30)  
*Macroventuria* Aa (2)  
*Microsphaeropsis* Höhn. (37)  
*Mixtura* O.E. Erikss. & J.Z. Yue (1)  
*Monascostroma* Höhn. (ca. 5)  
*Neoascochyta* Q. Chen & L. Cai (12)  
*Neodidymella* Phook., R.H. Perera & K.D. Hyde (1)  
*Neodidymelliopsis* Q. Chen & L. Cai (10)  
*Neomicrosphaeropsis* Thambug., Camporesi & K.D. Hyde (10)  
*Nothophoma* Q. Chen & L. Cai (9)  
*Paraboeremia* Q. Chen & L. Cai (6)  
*Phoma* Sacc. (= *Endophoma* Tsuneda & M.L. Davey) (100)  
*Phomatodes* Q. Chen & L. Cai (2)  
*Platychora* Petr. (1)  
*Remotididymella* Valenz.-Lopez (2)  
*Similiphoma* Valenz.-Lopez, Crous, Cano, Guarro & Stchigel (1)  
*Stagonosporopsis* Died. (22)  
*Vacuiphoma* Valenz.-Lopez, Cano, Crous, Guarro & Stchigel (2)  
*Xenodidymella* Q. Chen & L. Cai (6)

**Didymosphaeriaceae** Munk

*Alloconiothyrium* Verkley & Stielow (1)  
*Austropleospora* R.G. Shivas & L. Morin (1)  
*Barria* Z.Q. Yuan (1)  
*Bimuria* D. Hawksw., Chea & Sheridan (1)  
*Chromolaenicola* Mapook & K.D. Hyde (5)  
*Curreya* Sacc. (2)  
*Cylindroaseptospora* Jayasiri, E.B.G. Jones & K.D. Hyde (2)  
*Deniquelata* Ariyaw. & K.D. Hyde (2)  
*Didymocrea* Kowalski (1)  
*Didymosphaeria* Fuckel (ca. 25)  
*Julella* Fabre (ca. 20)  
*Kalmusia* Niessl (16)

*Kalmusibambusa* Phook., Tennakoon, Thambug. & K.D. Hyde (1)\*  
*Karstenula* Speg. (16)  
*Laburnicola* Wanas., Camporesi, E.B.G. Jones & K.D. Hyde (4)  
*Letendraea* Sacc. (ca. 3)  
*Lineostroma* H.J. Swart (1)  
*Montagnula* Berl. (ca. 30)\*  
*Neokalmusia* Ariyaw. & K.D. Hyde (6)  
*Neptunomyces* M. Gonçalves, T. Vicente & A. Alves (1)\*  
*Paracamarosporium* Wijayaw. & K.D. Hyde (7)  
*Paraconiothyrium* Verkley (19)  
*Paramassariosphaeria* Wanas., E.B.G. Jones & K.D. Hyde (2)  
*Paraphaeosphaeria* O.E. Erikss. (33)  
*Phaeodothis* Syd. & P. Syd. (5)  
*Pseudocamarosporium* Wijayaw. & K.D. Hyde (14)  
*Pseudopithomyces* Ariyaw. & K.D. Hyde (10)  
*Spegazzinia* Sacc. (11)\*  
*Tremateia* Kohlm., Volkm.-Kohlm. & O.E. Erikss. (5)  
*Verrucoconiothyrium* Crous (4)  
*Vicosamyces* Firmino, Machado & Pereira (1)  
*Xenocamarosporium* Crous & M.J. Wingf. (1)

***Dothidotthiaceae*** Crous & A.J.L. Phillips

*Belizeana* Kohlm. & Volkm. (1)  
*Dothidotthia* Höhn. (= *Neodothidotthia* Crous) (ca. 10)  
*Mycocentrospora* Deighton (4)  
*Phaeomyocentrospora* Crous, H.D. Shin & U. Braun (1)  
*Pleiochaeta* (Sacc.) S. Hughes (4)  
*Thyrostroma* Höhn. (ca. 45)  
*Wilsonomyces* Adask., J.M. Ogawa & E.E. Butler (1)

***Fuscostagonosporaceae*** Jayasiri, Camporesi & K.D. Hyde

*Fuscostagonospora* Kaz. Tanaka & K. Hiray. (3)

***Fusculinaceae*** Crous

*Fusculina* Crous & Summerell (3)  
*Gordonomyces* Crous & Marinc. (1)

***Halojulellaceae*** Suetrong, K.D. Hyde & E.B.G. Jones

*Halojulella* Suetrong, K.D. Hyde & E.B.G. Jones (1)

***Halotthiaceae*** Ying Zhang, J. Fourn. & K.D. Hyde

*Brunneoclavispora* Phook. & K.D. Hyde (1)  
*Halotthia* Kohlm. (1)  
*Mauritiana* Poonyth, K.D. Hyde, Aptroot & Peerally (1)  
*Neolophiostoma* S. Boonmee & K.D. Hyde (1)\*  
*Pontoporeia* Kohlm. (1)  
*Sulcosporium* Phook. & K.D. Hyde (1)

***Hermatomycetaceae*** Locq.

*Hermatomyces* Speg. (ca. 20)

**Hypsostromataceae** Huhndorf

*Hypsostroma* Huhndorf (2)

**Latoruaceae** Crous

*Latorua* Crous (1)

*Matsushimamyces* Rahul Sharma & Rohit Sharma (2)

*Polyschema* H.P. Upadhyay (22)

*Pseudoasteromassaria* M. Matsum. & Kaz. Tanaka (2)

**Lentimurisporaceae** N.G. Liu, J.K Liu & K.D. Hyde

*Bahusandhika* Subram. (9)\*

*Lentimurispora* N.G. Liu, Bhat & K.D. Hyde (1)\*

**Lentitheciaceae** Y. Zhang ter, C.L. Schoch, J. Fourn., Crous & K.D. Hyde

*Darksidea* D.G. Knapp, Kovács, J.Z. Groenew. & Crous (6)

*Halobyssothecium* Dayar., E.B.G. Jones & K.D. Hyde (1)

*Katumotoa* Kaz. Tanaka & Y. Harada (1)

*Keissleriella* Höhn. (ca. 36)

*Lentithecium* K.D. Hyde, J. Fourn. & Ying Zhang (9)\*

*Murilentithecium* Wanas., Camporesi, E.B.G. Jones & K.D. Hyde (3)

*Neophiosphaerella* Kaz. Tanaka & K. Hiray. (1)

*Phragmocamarosporium* Wijayaw., Yong Wang bis & K.D. Hyde (2)

*Pleurophoma* Höhn. (ca. 9)

*Poaceascoma* Phook. & K.D. Hyde (4)

*Pseudomurilentithecium* Mapook & K.D. Hyde (1)

*Setoseptoria* Quaedvl., Verkley & Crous (7)

*Tingoldiagio* K. Hiray. & Kaz. Tanaka (1)

*Towyspora* Wanas., E.B.G. Jones & K.D. Hyde (1)

**Leptosphaeriaceae** M.E. Barr

*Alloleptosphaeria* Ariyaw., Wanas. & K.D. Hyde (1)

*Alternariaster* E.G. Simmons (4)

*Chaetoplea* (Sacc.) Clem. (ca. 20)

*Heterosporicola* Crous (2)

*Leptosphaeria* Ces. & De Not. (151)

*Neoleptosphaeria* Ariyaw. & K.D. Hyde (2)

*Paraleptosphaeria* Gruyter, Aveskamp & Verkley (7)

*Plenodomus* Preuss (19)

*Pseudoleptosphaeria* Ariyaw. & K.D. Hyde (1)

*Querciphoma* Crous (2)

*Sclerenchymomyces* Phukhams. & K.D. Hyde (2)

*Sphaerellopsis* Cooke (6)

*Subplenodomus* Gruyter, Aveskamp & Verkley (6)

**Libertasomycetaceae** Crous

*Libertasomyces* Crous & Roets (3)

*Neoplatysporoides* Crous & M.J. Wingf. (1)

**Ligninsphaeriaceae** K.D. Hyde & Ariyaw. (Nom. inval., Art. 38.1(a) (Melbourne) *vide* Index Fungorum 2020)

*Ligninsphaeria* Jin F. Zhang, Jian K. Liu, K.D. Hyde & Zi Y. Liu (1)

*Ligninsphaeriopsis* Phukh., Feng & K.D. Hyde (1)

**Lindgomycetaceae** K. Hiray., Kaz. Tanaka & Shearer

*Arundellina* Wanas., E.B.G. Jones & K.D. Hyde (1)

*Clohesyomyces* K.D. Hyde (1)

*Hongkongmyces* C.C.C. Tsang, J.F.W. Chan, Trend.-Sm., A.H.Y. Ngan, I.W.H. Ling, S.K.P. Lau & P.C.Y. Woo (3)

*Lindgomassariosphaeria* W. Dong, H. Zhang & K.D. Hyde (1)

*Lindgomyces* K. Hiray., Kaz. Tanaka & Shearer (13)

*Lolia* Abdel-Aziz & Abdel-Wahab (1)

*Neolindgomyces* Jayasiri, E.B.G. Jones & K.D. Hyde (4)

**Lizoniaceae** Boonmee & K.D. Hyde

*Lizonia* (Ces. & De Not.) De Not. (22)

**Longipedicellataceae** Phukhams., Bhat & K.D. Hyde

*Longipedicellata* H. Zhang, K.D. Hyde & Jian K. Liu (1)

*Pseudoxylomyces* Kaz. Tanaka & K. Hiray. (1)

*Submerspora* W. Dong, H. Zhang & K.D. Hyde (1)

**Longiostiolaceae** Phukhams., Doilom & K.D. Hyde

*Longiostiolum* Doilom, Ariyaw. & K.D. Hyde (1)

**Lophiostomataceae** Sacc.

*Alpestrisphaeria* Thambug. & K.D. Hyde (2)

*Biappendiculispora* Thambug., Kaz. Tanaka & K.D. Hyde (1)

*Capulatispora* Thambug. & K.D. Hyde (1)

*Coelodictyosporium* Thambug. & K.D. Hyde (3)

*Crassiclypeus* A. Hashim., K. Hiray. & Kaz. Tanaka (1)\*

*Decaisnella* Fabre (13)

*Dimorphiopsis* Crous (1)

*Flabellascoma* A. Hashim., K. Hiray. & Kaz. Tanaka (2)\*

*Guttulispora* Thambug., Qing Tian & K.D. Hyde (1)

*Kiskunsagia* D.G. Knapp, Imrefi & Kovács (1)

*Lentistoma* A. Hashim., K. Hiray. & Kaz. Tanaka (1)

*Leptoparies* A. Hashim., K. Hiray. & Kaz. Tanaka (1)\*

*Lophiohelichrysum* Dayar., Camporesi & K.D. Hyde (1)

*Lophiopoacea* Ariyaw., Thambug. & K.D. Hyde (2)

*Lophiostoma* Ces. & De Not. (ca. 100)

*Neopaucispora* Wanas., Gafforov & K.D. Hyde (1)

*Neotrematosphaeria* Thambug., Kaz. Tanaka & K.D. Hyde (1)

*Neovaginatisspora* A. Hashim., K. Hiray. & Kaz. Tanaka (1)

*Parapaucispora* A. Hashim., K. Hiray. & Kaz. Tanaka (1)

*Paucispora* Thambug., Kaz. Tanaka & K.D. Hyde (3)

*Platystomum* Trevis. (ca. 20)

*Pseudocapulatispora* Mapook & K.D. Hyde (inpress)

*Pseudolophiostoma* Thambug., Kaz. Tanaka & K.D. Hyde (5)

*Pseudopaucispora* A. Hashim., K. Hiray. & Kaz. Tanaka (1)\*

*Pseudoplatystomum* Thambug. & K.D. Hyde (1)

*Quintaria* Kohlm. & Volkm.-Kohlm (3)

*Sigarispora* Thambug. & K.D. Hyde (14)

*Vaginatisspora* K.D. Hyde (8)

**Lophiotremataceae** K. Hiray. & Kaz.

- Atrocalyx* A. Hashim. & Kaz. Tanaka (6)
- Crassimassarina* A. Hashim. & Kaz. Tanaka (1)
- Cryptoclypeus* A. Hashim. & Kaz. Tanaka (2)
- Galeaticarpa* A. Hashim. & Kaz. Tanaka (1)
- Koordersiella* Höhn. (6)
- Lophiotrema* Sacc. (17)
- Pseudocryptoclypeus* A. Hashim. & Kaz. Tanaka (1)

**Macrodiplodiopsidaceae** Voglmayr, Jaklitsch & Crous

- Macrodiplodiopsis* Petr. (2)
- Pseudochaetosphaeronema* Punith. (4)

**Massariaceae** Nitschke

- Massaria* De Not. (31)
- Massarioramusclicola* Huanral., Thambug. & K.D. Hyde (1)
- Paramassaria* Samarak. & K.D. Hyde (1)

**Massarinaceae** Munk

- Byssothecium* Fuckel (8)
- Helminthosporium* Link (= *Helminthosporiella* Hern.-Restr., G.A. Sarria & Crous) (ca. 416)
- Massarina* Sacc. (ca. 100)
- Pseudodidymosphaeria* Thambug. & K.D. Hyde (2)
- Pseudosplanchnonema* Chethana & K.D. Hyde (1)
- Semifissispora* H.J. Swart (5)
- Stagonospora* (Sacc.) Sacc. (220)
- Suttonomyces* Wijayaw., Camporesi & K.D. Hyde (2)

**Melanommataceae** G. Winter (= *Pseudodidymellaceae* A. Hashim. & Kaz. Tanaka)

- Alpinaria* Jaklitsch & Voglmayr (1)
- Aposphaeria* Sacc. (189)
- Asymmetricospora* J. Fröhl. & K.D. Hyde (1)
- Bertiella* (Sacc.) Sacc. & P. Syd. (2)
- Bicrouania* Kohlm. & Volkm.-Kohlm. (1)
- Byssosphaeria* Cooke (27)
- Calyptonectria* Speg. (3)
- Camposporium* Harkn. (21)\*
- Exosporiella* P. Karst. (1)
- Fusiconidium* Jun F. Li, Phook. & K.D. Hyde (2)
- Herpotrichia* Fuckel (101)
- Mamillisphaeria* K.D. Hyde, S.W. Wong & E.B.G. Jones (1)
- Marjia* Wanas., Gafforov & K.D. Hyde (1)
- Melanocamarosporioides* D. Pem, R. Jeewon, Gafforov & K.D. Hyde (1)
- Melanocamarosporium* Wijayaw., Camporesi, Bhat & K.D. Hyde (2)
- Melanocucurbitaria* Wanas., Gafforov & K.D. Hyde (1)
- Melanodiplodia* Wanas., Gafforov & K.D. Hyde (1)
- Melanomma* Nitschke ex Fuckel (ca. 30)
- Monoseptella* Wanas., Gafforov & K.D. Hyde (1)
- Muriformistrickeria* Q. Tian, Wanas., Camporesi & K.D. Hyde (2)
- Navicella* Fabre (5)
- Neobysosphaeria* Wanas., Jones & K.D. Hyde (1)
- Petrakia* Syd. & P. Syd. (6)

*Phragmocephala* E.W. Mason & S. Hughes (10)  
*Phragmotrichum* Kunze (4)  
*Pleotrichocladium* Hern.-Restr., R.F. Castañeda & Gené (1)  
*Praetumpfia* Jaklitsch & Voglmayr (1)  
*Pseudobyssosphaeria* H.B. Jiang & K.D. Hyde (1)  
*Pseudodidymella* C.Z. Wei, Y. Harada & Katum. (2)  
*Pseudostrickeria* Q. Tian, Wanas., Camporesi & K.D. Hyde (3)  
*Sarimanas* M. Matsum., K. Hiray. & Kaz. Tanaka (2)  
*Seifertia* Partr. & Morgan-Jones (2)  
*Tumularia* Descals & Marvanová (2)  
*Uzbekistanica* Wanas., Gafforov & K.D. Hyde (3)  
*Xenostigmina* Crous (2)

***Morosphaeriaceae*** Suetrong, Sakay., E.B.G. Jones & C.L. Schoch  
*Aquihelicascus* W. Dong, H. Zhang & Doilom (3)  
*Aquilomyces* D.G. Knapp, Kovács, J.Z. Groenew. & Crous (2)  
*Clypeolocus* Kaz. Tanaka & K. Hiray. (4)  
*Helicascus* Kohlm. (12)  
*Morosphaeria* Suetrong, Sakay., E.B.G. Jones & C.L. Schoch (4)  
*Neohelicascus* W. Dong, H. Zhang & Doilom (8)

***Mycoporaceae*** Zahlbr.

*Mycoporum* Flot. ex Nyl. (ca. 5 + c. 35 orphaned, partly in *Mycoporellum* Müll. Arg.)

***Neocamarosporiaceae*** Wanas., Wijayaw., Crous & K.D. Hyde

*Dimorphosporicola* Crous (1)  
*Neocamarosporium* Crous & M.J. Wingf. (15)

***Neohendersoniaceae*** Giraldo & Crous

*Brevicollum* Kaz. Tanaka (2)  
*Crassiparies* M. Matsum., K. Hiray. & Kaz. Tanaka (1)  
*Medicopsis* Gruyter, Verkley & Crous (2)  
*Neohendersonia* Petr. (4)  
*Neomedicopsis* Crous & Akulov (1)

***Neomassariaceae*** H.A. Ariyaw., Jaklitsch & Voglmayr

*Neomassaria* Mapook, Camporesi & K.D. Hyde (2)

***Neomassarinaceae*** Mapook & K.D. Hyde

*Neomassarina* Phook., Jayasiri & K.D. Hyde (2)  
*Pseudohelminthosporium* Phukhams. & K.D. Hyde (1)

***Neophaeosphaeriaceae*** Ariyaw. & K.D. Hyde

*Neophaeosphaeria* M.P.S. Câmara, M.E. Palm & A.W. Ramaley (6)

***Neopyrenochaetaceae*** Valenz.-Lopez, Crous, Cano, Guarro & Stchigel

*Neopyrenochaeta* Valenz.-Lopez, Crous, Stchigel, Guarro & Cano (5)

***Nigrogranaceae*** Jaklitsch & Voglmayr

*Nigrograna* Gruyter, Verkley & Crous (12)

**Occultibambusaceae** D.Q. Dai & K.D. Hyde  
*Brunneofusispora* S.K. Huang & K.D. Hyde (1)\*  
*Neooccultibambusa* Doilom & K.D. Hyde (4)  
*Occultibambusa* D.Q. Dai & K.D. Hyde (7)  
*Seriascoma* Phook., D.Q. Dai & K.D. Hyde (2)  
*Versicolorisporium* Sat. Hatak., Kaz. Tanaka & Y. Harada (1)

**Ohleriaceae** Jaklitsch & Voglmayr  
*Ohleria* Fuckel (13)

**Parabambusicolaceae** Kaz. Tanaka & K. Hiray.  
*Aquastroma* Kaz. Tanaka & K. Hiray. (1)  
*Lonicericola* Phook., Jayasiri & K.D. Hyde (1)\*  
*Multilocularia* Phook. (1)  
*Multiseptospora* Phook. & K.D. Hyde (2)  
*Neoaquastroma* Wanas., E.B.G. Jones & K.D. Hyde (3)  
*Parabambusicola* Kaz. Tanaka & K. Hiray. (2)  
*Paramonodictys* N.G. Liu, K.D. Hyde & J.K. Liu (1)  
*Paratrimmatostroma* Jayasiri, Phook., D.J. Bhat & K.D. Hyde (1)\*  
*Pseudomonodictys* Doilom, Ariyaw., Bhat & K.D. Hyde (1)

**Paradictyoarthriniaceae** Doilom, Ariyaw., Bhat & K.D. Hyde  
*Paradictyoarthrinium* Matsush. (4)  
*Xenomassariosphaeria* Jayasiri, Wanas. & K.D. Hyde (1)

**Paralophiostomataceae** V.V. Sarma & M. Niranjana.  
*Paralophiostoma* V.V. Sarma & M. Niranjana. (1)

**Parapyrenochaetaceae** Valenz.-Lopez, Crous, Stchigel, Guarro & Cano  
*Parapyrenochaeta* Valenz.-Lopez, Crous, Stchigel, Guarro & Cano (2)  
*Quixadomyces* Cantillo & Gusmão (1)

**Periconiaceae** Nann.  
*Bambusistroma* D.Q. Dai & K.D. Hyde (1)  
*Flavomyces* D.G. Knapp, Kovács, J.Z. Groenew. & Crous (1)  
*Noosia* Crous, R.G. Shivas & McTaggart, Persoonia (1)\*  
*Periconia* Tode (46)

**Phaeoseptaceae** S. Boonmee, Thambug. & K.D. Hyde  
*Phaeoseptum* Ying Zhang, J. Fourn. & K.D. Hyde (2)  
*Plepunctum* N.G. Liu, K.D. Hyde & J.K. Liu (2)

**Phaeosphaeriaceae** M.E. Barr  
*Acericola* Wanas., Camporesi, E.B.G. Jones & K.D. Hyde (1)  
*Allophaeosphaeria* Ariyaw., Camporesi & K.D. Hyde (3)  
*Amarenographium* O.E. Erikss. (4)  
*Amarenomyces* O.E. Erikss. (2)\*  
*Ampelomyces* Ces. ex Schldl. (ca. 5)  
*Aphanostigme* Syd. (21)  
*Arezzomyces* Y. Marín & Crous (1)  
*Banksiophoma* Crous (1)  
*Bhagirathimyces* S.M. Singh & S.K. Singh (1)



*Bhatiellae* Wanas., Camporesi & K.D. Hyde (1)  
*Bricookea* M.E. Barr (1)  
*Brunneomurispora* Phook., Wanas. & K.D. Hyde (1)\*  
*Camarosporioides* W.J. Li & K.D. Hyde (1)  
*Chaetosphaeronema* Moesz (12)  
*Dactylidina* Wanas., Camporesi & K.D. Hyde (2)  
*Dematiopleospora* Wanas., Camporesi, E.B.G. Jones & K.D. Hyde (8)  
*Didymocyrtis* Vain. (21)  
*Dlhawksworthia* Wanas., Camporesi & K.D. Hyde (3)  
*Edenia* M.C. González, A.L. Anaya, Glenn, Saucedo & Hanlin (2)  
*Embarria* Wanas., Camporesi & K.D. Hyde (1)  
*Equiseticola* Abdelsalam, Tibpromma, Wanas. & K.D. Hyde (1)  
*Eudarlucella* Speg. (8)\*  
*Galiicola* Tibpromma, Camporesi & K.D. Hyde (3)  
*Hydeomyces* Maharachch., H.A. Ariyaw., Wanas. & Al-Sadi (2)  
*Hydeopsis* J.F. Zhang, J.K. Liu & Z.Y. Liu (1)  
*Italica* Wanas., Camporesi & K.D. Hyde (2)  
*Jeremyomyces* Crous & R.K. Schumach. (1)  
*Juncaceicola* Tennakoon, Camporesi, Phook. & K.D. Hyde (8)  
*Kwanghwana* A. Karunarathna, C. H. Kuo & K. D. Hyde (1)  
*Leptospora* Rabenh. (15)  
*Longispora* Phukhams. & K.D. Hyde (1)  
*Loratospora* Kohlm. & Volkm.-Kohlm. (2)  
*Mauginiella* Cavara (1)  
*Melnikia* Wijayaw., Goonas., Bhat & K.D. Hyde (1)  
*Murichromolaenicola* Mapook & K.D. Hyde (2)  
*Muriphaeosphaeria* Phukhams., Bulgakov & K.D. Hyde (3)  
*Neophiobolus* Mapook & K.D. Hyde (1)  
*Neosetophoma* Gruyter, Aveskamp & Verkley (15)  
*Neosphaerellopsis* Crous & Trakun. (10)  
*Neostagonospora* Quaedvl., Verkley & Crous (6)  
*Neostagonosporella* C.L. Yang, X.L. Xu & K.D. Hyde (1)\*  
*Neosulcatispora* Crous & M.J. Wingf. (2)  
*Nodulosphaeria* Rabenh. (ca. 52)  
*Ophiobolopsis* Phook., Wanas. & K.D. Hyde (1)\*  
*Ophiobolus* Riess (350)  
*Ophiosimulans* Tibpromma, Camporesi & K.D. Hyde (1)  
*Ophiosphaerella* Speg. (10)  
*Paraleptospora* Mapook & K.D. Hyde (2)  
*Paraloratospora* Bundhun, Tennakoon, Phookamsak & K.D. Hyde (2)  
*Paraophiobolus* Phook., Wanas. & K.D. Hyde (2)\*  
*Paraphoma* Morgan-Jones & J.F. White (8)  
*Parastagonospora* Quaedvl., Verkley & Crous (ca. 19)  
*Parastagonosporella* M. Bakhshi, Arzanlou & Crous (1)  
*Phaeopecton* Thambug., Dissan. & K.D. Hyde (3)\*  
*Phaeoseptoriella* Crous (1)  
*Phaeosphaeria* I. Miyake (ca. 95)  
*Phaeosphaeriopsis* M.P.S. Câmara, M.E. Palm & A.W. Ramaley (12)  
*Phaeostagonospora* A.W. Ramaley (1)  
*Piniphoma* Crous & R.K. Schumach. (1)  
*Poaceicola* W.J. Li, Camporesi, Bhat & K.D. Hyde (10)  
*Populocrescentia* Wanas., E.B.G. Jones & K.D. Hyde (3)

*Pseudoophiobolus* Phook., Wanas. & K.D. Hyde (8)\*  
*Pseudoophiosphaerella* J.F. Zhang, J.K. Liu & Z.Y. Liu (1)  
*Pseudophaeosphaeria* Jayasiri, Camporesi & K.D. Hyde (1)  
*Pseudostaurosphaeria* Mapook & K.D. Hyde (2)  
*Sclerostagonospora* Höhn. (ca. 15)  
*Scolicosporium* Lib. ex Roum. (13)  
*Septoriella* Oudem. (= *Wojnowicia* Sacc.) (22)\*  
*Setomelanomma* M. Morelet (1)  
*Setophoma* Gruyter, Aveskamp & Verkley (6)  
*Sulcispora* Shoemaker & C.E. Babc. (2)  
*Tiarospora* Sacc. & Marchal (3)  
*Tintelnotia* S.A. Ahmed, Hofmüller, M. Seibold & de Hoog (2)  
*Vagicola* K.W.T. Chethana & K.D. Hyde (1)  
*Vittaliana* Devadatha, Nikita, A. Baghela & V.V. Sarma (1)\*  
*Vrystaatia* Quaedvl., W.J. Swart, Verkley & Crous (1)  
*Wingfieldomyces* Y. Marín & Crous (1)  
*Wojnowiciella* Crous, Hern.-Restr. & M.J. Wingf. (9)  
*Xenophaeosphaeria* Crous & M.J. Wingf. (1)  
*Xenophoma* Crous & Trakunyingcharoen (1)  
*Xenoseptoria* Quaedvl., H.D. Shin, Verkley & Crous (1)  
*Yunnanensis* Karun., Phook. & K.D. Hyde (1)\*

***Pleomassariaceae*** M.E. Barr

*Beverwykella* Tubaki (3)  
*Lichenopyrenis* Calat., Sanz & Aptroot (1)  
*Myxocyclus* Riess (1)  
*Peridiothelia* D. Hawksw. (3)  
*Prosthemium* Kunze (ca. 8)  
*Pseudotrichia* Kirschst. (ca. 8)  
*Splanchnonema* Corda (37)

***Pleomonodictydaceae*** Hern.-Restr., J. Mena & Gené

*Pleomonodictys* Hern.-Restr., J. Mena & Gené (2)  
*Pleohelicoon* Jayasiri, E.B.G. Jones & K.D. Hyde (2)

***Pleosporaceae*** Nitschke

*Allonecte* Syd. (3)  
*Alternaria* Nees (ca. 360)\*  
*Bipolaris* Shoemaker (69)  
*Clathrospora* Rabenh. (20)  
*Comoclathris* Clem. (30)  
*Curvularia* Boedijn (119)  
*Decorospora* Inderb., Kohlm. & Volkm.-Kohlm. (1)  
*Diademosia* Shoemaker & C.E. Babc. (4)\*  
*Dichotomophthora* Mehrl. & Fitzp. ex P.N. Rao (6)  
*Exserohilum* K.J. Leonard & Suggs (ca. 30)  
*Extrawettsteinina* M.E. Barr (4)  
*Gibbago* E.G. Simmons (1)  
*Johnalcornia* Y.P. Tan & R.G. Shivas (1)  
*Paradendryphiella* Woudenberg & Crous (2)  
*Platysporoides* (Wehm.) Shoemaker & C.E. Babc. (11)  
*Pleoseptum* A.W. Ramaley & M.E. Barr (1)

*Porocercospora* Amaradasa, Amundsen, Madrid & Crous (1)\*  
*Prathoda* Subram. (2)\*  
*Pseudoyuconia* Lar.N. Vassiljeva (1)  
*Pyrenophora* Fr. (= *Mariellottia* Shoemaker) (ca. 95)  
*Stemphylium* Wallr. (ca. 96)\*  
*Tamaricicola* Thambug., Camporesi & K.D. Hyde (1)  
*Typhicola* Crous (1)

***Pseudoastrophaeriellaceae*** Phook. & K.D. Hyde

*Carinispota* K.D. Hyde (2)  
*Pseudoastrophaeriella* Phook., Z.L. Luo & K.D. Hyde (6)  
*Pseudoastrophaerellopsis* Devadatha, Wanas., Jeewon & V.V. Sarma (1)\*

***Pseudoberkleasmiaceae*** Phukhams. & K.D. Hyde

*Pseudoberkleasmium* Tibpromma & K.D. Hyde (3)

***Pseudocoleodictyosporaceae*** Doilom & K.D. Hyde

*Pseudocoleodictyospora* Doilom & K.D. Hyde (3)  
*Subglobosporium* Doilom & K.D. Hyde (1)

***Pseudolophiotremataceae*** K.D. Hyde & Hongsanan

*Clematidis* Tibpromma, Camporesi & K.D. Hyde (1)  
*Pseudolophiotrema* A. Hashim. & Kaz. Tanaka (1)

***Pseudomassarinaceae*** Phukhams & K.D. Hyde

*Pseudomassarina* Phukhams. & K.D. Hyde (1)

***Pseudopyrenochaetaceae*** Valenz.-López, Crous, Stchigel, Guarro & J.F. Cano

*Pseudopyrenochaeta* Valenzuela-López, Crous, Stchigel, Guarro & Cano (2)

***Pyrenochaetopsisaceae*** Valenz.-López, Crous, Cano, Guarro & Stchigel

*Pyrenochaetopsis* Gruyter, Aveskamp & Verkley (7)  
*Neopyrenochaetopsis* Valenz.-López, Cano, Guarro & Stchigel (1)  
*Xenopyrenochaetopsis* Valenz.-Lopez, Crous, Stchigel, Guarro & Cano (1)

***Roussoellaceae*** Jian K. Liu, Phook., D.Q. Dai & K.D. Hyde

*Appendispota* K.D. Hyde (2)  
*Cytoplea* Bizz. & Sacc. (5)  
*Elongatopedicellata* Jin F. Zhang, Jian K. Liu, K.D. Hyde & Zi Y. Liu (1)  
*Immotthia* M.E. Barr (2)\*  
*Neoroussoella* Jian K. Liu, Phook. & K.D. Hyde (7)  
*Pararoussoella* Wanas., E.B.G. Jones & K.D. Hyde (3)\*  
*Pseudoneoconiothyrium* Wanas., Phukhams., Camporesi & K.D. Hyde (1)  
*Pseudoroussoella* Mapook & K.D. Hyde (2)  
*Roussoella* Sacc. (38)  
*Roussoellopsis* I. Hino & Katum. (3)  
*Setoarthopyrenia* Mapook & K.D. Hyde (1)  
*Xenoroussoella* Mapook & K.D. Hyde (1)

***Salsugineaceae*** K.D. Hyde & Tibpromma

*Acrocordiopsis* Borse & K.D. Hyde (2)  
*Salsuginea* K.D. Hyde (1)

**Shiraiaceae** Y.X. Liu, Zi Y. Liu & K.D. Hyde

*Grandigallia* M.E. Barr, Hanlin, Cedeño, Parra & R. Hern. (1)

*Rubroshiraia* D.Q. Dai & K.D. Hyde (1)

*Shiraia* Henn. (1)

**Sporormiaceae** Munk

*Chaetopreussia* Locq.-Lin. (1)

*Forliomyces* Phukhams., Camporesi & K.D. Hyde (1)

*Pleophragma* Fuckel (1)

*Preussia* Fuckel (51)

*Sparticola* Phukhams., Ariyaw., Camporesi & K.D. Hyde (4)

*Sporormia* De Not. (29)

*Sporormiella* Ellis & Everh. (60)\*

*Sporormurispora* Wanas., Bulgakov, Gafforov & K.D. Hyde (2)

*Westerdykella* Stolk (50)

**Striatiguttulaceae** S.N. Zhang, K.D. Hyde & J.K. Liu

*Longicorpus* S.N. Zhang, K.D. Hyde & J.K. Liu (1)

*Striatiguttula* S.N. Zhang, K.D. Hyde & J.K. Liu (2)

**Sulcatisporaceae** Kaz. Tanaka & K. Hiray.

*Anthosulcatispora* Phukhams. & K.D. Hyde (2)

*Magnicamarosporium* Kaz. Tanaka & K. Hiray. (2)

*Neobambusicola* Crous & M.J. Wingf. (2)

*Parasulcatispora* Phukhams. & K.D. Hyde (1)

*Pseudobambusicola* Hern.-Restr. & Crous (1)\*

*Sulcatispora* Kaz. Tanaka & K. Hiray. (2)

**Teichosporaceae** M.E. Barr

*Asymmetrispora* Thambug. & K.D. Hyde (2)

*Aurantiascoma* Thambug. & K.D. Hyde (1)

*Chaetomastia* (Sacc.) Berl. (10)

*Floricola* Kohlm. & Volkm.-Kohlm. (2)

*Loculohypoxylon* M.E. Barr (1)

*Magnibotryascoma* Thambug. & K.D. Hyde (2)

*Misturatosphaeria* Mugambi & Huhndorf (2)

*Paulkirkia* Wijayaw., Wanas., Tangthir., Camporesi & K.D. Hyde (1)

*Pseudoaurantiascoma* Thambug. & K.D. Hyde (1)

*Pseudomisturatosphaeria* Thambug. & K.D. Hyde (1)

*Ramusculicola* Thambug. & K.D. Hyde (1)

*Sinodidymella* J.Z. Yue & O.E. Erikss. (5)

*Teichospora* Fuckel (35)

**Testudinaceae** Arx

*Angustospora* Abdel-Aziz (1)

*Halotestudina* Dayar. & K.D. Hyde (1)

*Lepidosphaeria* Parg.-Leduc (1)

*Lojkania* Rehm (10)

*Muritestudina* Wanas., E.B.G. Jones & K.D. Hyde (1)

*Neotestudina* Segretain & Destombes (3)

*Testudina* Bizz. (1)

*Ulospora* D. Hawksw., Malloch & Sivan. (1)

*Verruculina* Kohlm. & Volkm.-Kohlm. (1)

***Tetraplosphaeriaceae*** Kaz. Tanaka & K. Hiray

*Byssolophis* Clem. (3)

*Ernakulamia* Subram. (2)

*Polyplosphaeria* Kaz. Tanaka & K. Hiray. (5)

*Pseudotetraploa* Kaz. Tanaka & K. Hiray. (4)

*Quadricrura* Kaz. Tanaka, K. Hiray. & Sat. Hatak. (3)

*Shrungabeeja* V.G. Rao & K.A. Reddy (5)

*Tetraploa* Berk. & Broome (19)

*Triplosphaeria* Kaz. Tanaka & K. Hiray (4)

***Thyridariaceae*** Q. Tian & K.D. Hyde

*Chromolaenomyces* Mapook & K.D. Hyde (1)

*Cycasicola* Wanas., E.B.G. Jones & K.D. Hyde (2)

*Liua* Phook. & K.D. Hyde (1)\*

*Parathyridaria* Jaklitsch & Voglmayr (5)

*Pseudothyridariella* Mapook & K.D. Hyde (2)

*Thyridaria* Sacc. (52)

*Thyridariella* Devadatha, V.V. Sarma, K.D. Hyde, Wanas. & E.B.G Jones (2)

***Torulaceae*** Corda

*Dendryphion* Wallr. (68)

*Neotorula* Ariyaw., Z.L. Luo & K.D. Hyde (2)

*Rostriconidium* Z.L. Luo, K.D. Hyde & H.Y. Su (2)

*Rutola* J.L. Crane & Schokn. (1)

*Sporidesmioides* Jun F. Li, Phook. & K.D. Hyde (1)

*Torula* Pers. (12)

***Trematosphaeriaceae*** K.D. Hyde, Y. Zhang ter, Suetrong & E.B.G. Jones

*Bryosphaeria* Döbblers (9)

*Falciformispora* K.D. Hyde (4)

*Hadrospora* Boise (2)

*Halomassarina* Suetrong, Sakay., E.B.G. Jones, Kohlm., Volkm.-Kohlm. & C.L. Schoc (1)

*Raghukumaria* Devadatha, V.V Sarma & E.B.G Jones (1)

*Trematosphaeria* Fuckel (20)

***Tzeananiaceae*** H.A. Ariyaw., A.J.L. Phillips & Chuang

*Tzeanania* H.A. Ariyaw., A.J.L. Phillips & Chuang (1)

***Wicklowiaceae*** Ariyaw. & K.D. Hyde

*Wicklowsia* Raja, A. Ferrer & Shearer (2)

***Zopfiaceae*** G. Arnaud ex D. Hawksw.

*Celtidia* J.M. Janse (1)

*Coronopapilla* Kohlm. & Volkm.-Kohlm. (2)

*Rechingeriella* Petr. (2)

*Richonia* Boud. (1)

*Zopfia* Rabenh. (5)

*Zopfiofoveola* D. Hawksw. (1)

***Pleosporales* genera incertae sedis**

- Acuminatispora* S.N. Zhang, K.D. Hyde & J.K. Liu (1)  
*Aegeanispora* E.B.G. Jones & Abdel-Wahab (1)  
*Antealophiotrema* A. Hashim. & Kaz. Tanaka (1)  
*Ascorhombispora* L. Cai & K.D. Hyde (1)  
*Atracidymella* Davey & Currah (1)  
*Briansuttonia* R.F. Castañeda, Minter & Saikawa (1)  
*Camarographium* Bubák (7)  
*Chaetodiplodia* P. Karst. (9)  
*Chaetophoma* Cooke (ca. 30)  
*Cheiromoniliophora* Tzean & J.L. Chen (4)  
*Crassiperidium* M. Matsum. & Kaz. Tanaka (2)  
*Cyclothyrium* Petr. (2)  
*Dangeardiella* Sacc. & P. Syd. (2)  
*Daruvedia* Dennis (1)  
*Dokmaia* I. Promputtha (1)  
*Farasanispora* Abdel-Wahab, Bahkali & E.B.G. Jones (1)  
*Glaxoa* P.F. Cannon (1)  
*Homostegia* Fuckel (2)  
*Hobus* Jaklitsch & Voglmayr (1)  
*Inflatispora* Y. Zhang ter, J. Fourn. & K.D. Hyde (2)  
*Isthmosporella* Shearer & J.L. Crane (1)  
*Megacapitula* J.L. Chen & Tzean (1)  
*Megamentella* D.A.C. Almeida, Gusmão & A.N. Mill. (1)  
*Neocurreya* Thambug. & K.D. Hyde (5)  
*Ostropella* (Sacc.) Höhn. (5)  
*Paraepicoccum* Matsush. (1)  
*Paraliomyces* Kohlm. (1)  
*Parameliola* Hongsanan, Peršoh & K.D. Hyde (2)  
*Perthomyces* Crous (1)  
*Phialophorophoma* Linder (1)  
*Pleosphaerellula* Naumov & Czerepan. (2)  
*Pseudohendersonia* Crous & M.E. Palm (2)  
*Pseudopassalora* Crous (1)  
*Pyrenochaeta* De Not. (5)  
*Rebentischia* P. Karst. (16)  
*Repetophragma* Subram. (38)  
*Scleroramularia* Batzer & Crous (6)  
*Scolecobasidium* E.V. Abbott (64)  
*Setophaeosphaeria* Crous & Y. Zhang ter (6)  
*Sirodesmium* De Not. (ca. 25)  
*Spiroplana* Voglmayr, M.J. Park & H.D. Shin (1)  
*Stuartella* Fabre (6)  
*Xenolophium* Syd. (ca. 5)

***Pleosporomycetidae* genus incertae sedis**

- Hysterographium* Corda (3)

***Dothideomycetes* orders incertae sedis**

***Abrothallales*** Pérez-Ort. & Suija [= *Lichenoconiales* Diederich, Lawrey & K.D. Hyde]

***Lichenoconiaceae*** Diederich & Lawrey [= *Abrothallaceae* Pérez-Ort. & Suija]\*

- Abrothallus* De Not (= *Epinephroma* Zhurb.; *Vouauxiomyces* Dyko & D. Hawks.) (42)\*

*Lichenocodium* Petr. & Syd. (15)

**Acrospermales** Minter, Peredo & A.T. Watson

**Acrospermaceae** Fuckel

*Acrospermum* Tode (12)

*Gonatophragmium* Deighton (17)

*Oomyces* Berk. & Broome (7)

**Acrospermales** genus *incertae sedis*

*Pseudovigaria* H.D. Shin, U. Braun, Arzanlou & Crous (2)

**Asterinales** M.E. Barr ex D. Hawksw. & O.E. Erikss. (= *Asterotexales* Firmino et al.)

**Asterinaceae** Hansf.

*Asterina* Lév. (ca. 1085)

*Asterinella* Theiss. (ca. 39)

*Asterolibertia* G. Arnaud (ca. 30)

*Asterostomella* Speg.

*Batistinula* Arx (1)

*Cirsosia* G. Arnaud (18)

*Dothidasteromella* Höhn. (11)

*Echidnodella* Theiss. & Syd. (35)

*Halbania* Racib. (3)

*Meliolaster* Höhn. (3)

*Parasterinopsis* Bat. (3)

*Platypeltella* Petr. (3)

*Prillieuxina* G. Arnaud (66)

*Pycnocarpon* Theiss.

*Schenckiella* Henn. (1)

*Trichasterina* G. Arnaud (11)

*Trichopeltospora* Bat. & Cif. (2)

*Uleothyrium* Petr. (3)

*Vizellopsis* Bat., J.L. Bezerra & T.T. Barros (1)

**Asterotexaceae** Firmino, O.L. Pereira & Crous

*Asterotexis* Arx (2)

**Hemigraphaceae** D.Q. Dai & K.D. Hyde\*

*Hemigrapha* (Müll. Arg.) D. Hawksw. (8)

**Lembosiaceae** Hosag.

*Lembosia* Lév. (ca. 200)

**Melaspilellaceae** D.Q. Dai & K.D. Hyde\*

*Melaspilella* (P. Karst.) Vain. (1)

**Morenoinaceae** Hongsanan & K.D. Hyde

*Morenoina* Theiss. (ca. 25)

**Neobueliellaceae** Hongsanan & K.D. Hyde

*Neobueliella* Hongsanan & K.D. Hyde

**Stictographaceae** D.Q. Dai & K.D. Hyde\*

- Buelliella* Fink (12)
- Karschia* Körb. (4)
- Labrocarpon* Etayo & Pérez-Ort. (1)
- Melaspileopsis* (Müll. Arg.) Ertz & Diederich (1)
- Stictographa* Mudd (2)

**Asterinales** genera *incertae sedis*

- Andamanomyces* Hosag. (1)
- Caribaeomyces* Cif. (1)
- Discopycnothyrium* Hongsanan & K.D. Hyde (1)
- Hazslinszkyia* Körb. (4)
- Inocyclus* Theiss. & Syd. (6)
- Melanographa* Müll. Arg. (1)
- Pirozynskiella* S. Hughes (3)
- Vishnumyces* Hosag. (1)

**Botryosphaeriales** C.L. Schoch, Crous & Shoemaker

**Aplosporellaceae** Slippers, Boissin & Crous

- Alanomyces* Roh. Sharma (1)\*
- Aplosporella* Speg. (= *Bagnisiella* Speg.) (10)\*

**Botryosphaeriaceae** Theiss. & Syd. (= *Endomelanconiopsidaceae* Tao Yang & Crous)\*

- Alanphillipsia* Crous & M.J. Wingf. (5)
- Barriopsis* A.J.L. Phillips, A. Alves & Crous (5)
- Botryobambusa* Phook., J.K. Liu & K.D. Hyde (2)
- Botryosphaeria* Ces. & De Not. (13)
- Cophinforma* Doilom, J.K. Liu & K.D. Hyde (2)
- Diplodia* Fr. (more than 1000 names in MycoBank, 30 known from culture)
- Dothiorella* Sacc. (389 names in MycoBank, 38 known from culture) (= *Spencermartinsia* A.J.L. Phillips, A. Alves & Crous)\*
- Endomelanconiopsis* Rojas & Samuels (2)\*
- Eutiarosporella* Crous (7)\*
- Lasiodiplodia* Ellis & Everh. (35)
- Macrophomina* Petr. (2)
- Marasasiomyces* Crous (1)\*
- Mucoharknessia* Crous, R.M. Sánchez & Bianchin. (2)\*
- Neodeightonia* Booth (6)
- Neofusicoccum* Crous, Slippers & A.J.L. Phillips (4)
- Neoscytalidium* Crous & Slippers (3)\*
- Oblongocollomyces* Tao Yang & Crous (1)\*
- Phaeobotryon* Theiss. & Syd. (4)
- Sakireeta* Subram. & K. Ramakr. (1)\*
- Sardiniella* Linaldeddu, A. Alves & A.J.L. Phillips (1)\*
- Sphaeropsis* Sacc. (more than 600 names in MycoBank, 4 known from culture)
- Tiarosporella* Höhn. (2)

**Melanopsaceae** Phillips A.J.L., Slippers, Boissin & Crous

- Melanops* Nitschke ex Fuckel (105 names in MycoBank, 4 known from culture)

**Phyllostictaceae** Fr. (= *Pseudofusicoccumaceae* Tao Yang & Crous)

- Phyllosticta* Pers. (ca. 53)



*Pseudofusicoccum* Mohali, Slippers & M.J. Wingf. (7)\*

**Planistromellaceae** M.E. Barr

- Kellermania* Ellis & Everh. (ca. 16)\*
- Mycosphaerellopsis* Höhn. (1)
- Planistroma* A.W. Ramaley (6)
- Umthunziomyces* Crous & M.J. Wingf. (1)\*

**Saccharataceae** Slippers, Boissin & Crous (= *Septorioideaceae* Wyka & Broders)

- Neoseptorioides* Crous, Jacq. Edwards & Pascoe (1)\*
- Pileospora* Tanney & Seifert (1)
- Saccharata* Denman & Crous (20)
- Septorioides* Quaedvl., Verkley & Crous (2)\*

**Botryosphaeriales** genera *incertae sedis*

- Auerswaldiella* Theiss. & Syd. (7)
- Coccostromella* Petr. (1)
- Leptoguignardia* E. Müll. (1)
- Metameris* Theiss. & Syd. (5)
- Phyllachorella* Syd. (8)
- Pilgeriella* Henn. (2)
- Sivanesia* W.H. Hsieh & Chi Y. Chen (1)
- Vestergrenia* Rehm (3)

**Catinellales** Ekanayaka, K.D. Hyde & Ariyaw.

**Catinellaceae** Ekanayaka, K.D. Hyde & Ariyaw.

- Catinella* Boud. (1 or 2)

**Cladoriellales** Crous

**Cladoriellaceae** Crous

- Cladoriella* Crous (5)

**Collemopsidiales** Pérez-Ort., Garrido-Ben. & Grube

**Xanthopyreniaceae** Zahlbr.

- Collemopsidium* Nyl. (27)
- Didymellopsis* (Sacc.) Clem. & Shear (6)
- Frigidopyrenia* Grube (1)
- Xanthopyrenia* Bachm. (2)
- Zwackhiomacromyces* Etayo & van den Boom (2)
- Zwackhiomyces* Grube & Hafellner (35)

**Dyfrolomycetales** K.L. Pang, K.D. Hyde & E.B.G. Jones

**Pleurotremataceae** Walt. Watson

- Dyfrolomyces* K.D. Hyde, K.L. Pang, Alias, Suetrong & E.B.G. Jones (8)
- Melomastia* Nitschke ex Sacc. (4)
- Pleurotrema* Müll. Arg. (1)

**Eremithallales** Lücking & Lumbsch

**Melaspileaceae** W. Watson (= *Eremithallaceae* Lücking & Lumbsch)

- Encephalographa* A. Massal. (1)
- Melaspilea* Nyl. (1 + c. 75 orphaned) (= *Eremithallus* Lücking et al.)

***Eremomycetales*** Pem & Hyde

***Eremomycetaceae*** Malloch & Cain

*Eremomyces* Malloch & Cain (2)

*Rhexothecium* Samson & Mouch. (1)

***Eremomycetales*** genus *incertae sedis*

*Arthrographis* G. Cochet ex Sigler (12)

***Jahnulales*** K.L. Pang, Abdel-Wahab, El-Shar., E.B.G. Jones & Sivichai

***Aliquandostipitaceae*** Inderbitzin

*Aliquandostipite* Inderbitzin (7)

*Brachiosphaera* Nawawi (2)

*Jahnula* Kirschst. (19)

*Megalohypha* A. Ferrer & Shearer (1)

*Neojahnula* W. Dong, H. Zhang & K.D. Hyde (1)

*Pseudojahnula* W. Dong, H. Zhang & K.D. Hyde (1)

*Xylomyces* Goos, R.D. Brooks & Lamore (8)\*

***Manglicolaceae*** Suetrong & E.B.G. Jones

*Manglicola* Kohlm. & E. Kohlm. (1)\*

***Kirschsteiniotheliales*** Hern.-Restr., R.F. Castañeda, Gené & Crous

***Kirschsteiniotheliaceae*** Boonmee & K.D. Hyde

*Kirschsteiniothelia* D. Hawksw. (29)

***Kirschsteiniotheliales*** genera *incertae sedis*

*Brachysporiella* Bat. (*Brachysporiella s. lato.*) (15)

*Taeniolella* S. Hughes *sensu lato*\*

***Lembosinales*** Crous

***Lembosinaceae*** Crous

*Lembosina* Theiss. (21)

***Lichenotheliales*** K. Knudsen, Muggia & K.D. Hyde

***Lichenotheliaceae*** Henssen

*Lichenothelia* D. Hawksw. (27)

*Endococcus* Nyl. (44)

***Microthyriales*** G. Arnaud

***Microthyriaceae*** Sacc.

*Arnaudiella* Petr. (12)

*Calothyriopsis* Höhn. (4)

*Chaetothyriothecium* Hongsanan & K.D. Hyde (1)

*Hamatispora* L.T.H. Yen, K. Yamag. & K. Ando (1)

*Microthyrium* Desm. (ca. 180)

*Neoanungitea* Crous (1)

*Paramicrothyrium* H.X. Wu & K.D. Hyde (1)

*Pseudomicrothyrium* X.Y. Zeng, S. Hongsanan & K.D. Hyde (1)

*Pseudopenidiella* Crous & Koukol (1)

*Seynesiella* G. Arnaud (5)

*Tumidispora* Hongsanan & K.D. Hyde (1)

**Microthyriales** genera *incertae sedis*

- Heliocephala* V. Rao, K.A. Reddy & de Hoog (7)
- Mitopeltis* Speg. (2)
- Neoscolecobasidium* Crous (1)
- Parazalerion* Madrid, Gené & Cano (1)\*
- Thyriodictyella* Cif (1)
- Tothia* Bat. (2)

**Minutisphaerales** Raja, Oberlies, Shearer & A.N. Mill.

**Acrogenosporaceae** Jayasiri & K.D. Hyde\*

- Acrogenospora* M.B. Ellis (12)

**Minutisphaeraceae** Raja, Oberlies, Shearer & A.N. Mill.

- Minutisphaera* Shearer, A.N. Mill. & A. Ferrer (4)

**Monoblastiales** Lücking, M.P. Nelsen & K.D. Hyde

**Monoblastiaceae** Walt. Watson

- Acrocordia* A. Massal. (6)
- Anisomeridium* (Müll. Arg.) M. Choisy (ca. 80)
- Caprettia* Bat. & H. Maia (8)
- Megalotremis* Aptroot (12)
- Monoblastia* Riddle (11)
- Trypetheliopsis* Asahina (6)

**Murramarangomycetales** Crous

**Murramarangomycetaceae** Crous

- Murramarangomyces* Crous (1)

**Muyocoprionales** Mapook, Boonmee & K.D. Hyde

**Muyocoproneae** K.D. Hyde

- Arxiella* Papendorf (3)
- Leptodiscella* Papendorf (5)
- Muyocopron* Speg. (51)
- Mycoleptodiscus* Ostaz. (18)
- Neocochlearomyces* Pinruan, Sommai, Suetrong, J.Z. Groenew. & Crous (1)
- Neomycoleptodiscus* Hern.-Restr., J.D.P. Bezerra & Crous (1)
- Paramycoleptodiscus* Crous & M.J. Wingf. (1)
- Pseudopalawania* Mapook & K.D. Hyde (1)
- Setoapiospora* Mapook & K.D. Hyde (1)

**Natipusillales** Raja, Shearer, A.N. Mill. & K.D. Hyde

**Natipusillaceae** Raja, Shearer & A.N. Mill.

- Natipusilla* A. Ferrer, A.N. Mill. & Shearer (4)

**Parmulariales** D.Q. Dai & K.D. Hyde\*

**Parmulariaceae** E. Müll. & Arx ex M.E. Barr

- Aldona* Racib. (3)
- Aldonata* Sivan. & A.R.P. Sinha (1)
- Antoniomyces* Inácio (1)
- Aulacostroma* Syd. & P. Syd. (5)
- Campoia* Speg. (4)
- Cirsosiopsis* Butin & Speer (1)

*Cocconia* Sacc. (13)  
*Cycloshizon* P. Henn. (13)  
*Cyclostomella* Pat. (4)  
*Dothidasteroma* Höhn. (4)  
*Ferrarisia* Sacc. (ca. 8)  
*Hysterostomella* Speg. (23)  
*Kiehlia* Viégas (2)  
*Mintera* Inácio & P.F. Cannon (1)  
*Pachypatella* Theiss. & Syd. (1)  
*Palawaniella* Doidge (7)  
*Parmularia* Lév. (6)  
*Parmulariopsella* Sivan. (1)  
*Parmulariopsis* Petr. (1)  
*Parmulina* Theiss. & Syd. (6)  
*Placoasterella* Sacc. ex Theiss. & Syd. (4)  
*Placosoma* Syd. (2)  
*Placostromella* Petr. (3)  
*Pleiomellina* Bat., J.L. Bezerra & H. Maia (1)  
*Polycyclina* Theiss. & Syd. (1)  
*Polycyclus* Höhn. (2)  
*Protothyrium* G. Arnaud (4)  
*Pseudolembosia* Theiss. (4)  
*Rhagadolobiosis* Guatim. & R.W. Barreto (1)  
*Rhagadolobium* P. Henn. & Lindau (10)  
*Rhipidocarpon* (Theiss.) Theiss. & Syd. (1)  
*Symphaeophyma* Speg. (1)  
*Syrropeltis* Bat., J.L. Bezerra & Matta (1)  
*Thallomyces* H.J. Swart (1)  
*Viegasella* Inácio & P.F. Cannon (1)

***Patellariales*** D. Hawksw. & O.E. Erikss.

***Patellariaceae*** Corda

*Baggea* Auersw. (1)  
*Banhegyia* L. Zeller & Tóth (2)  
*Colensoniella* Hafellner (1)  
*Endotryblidium* Petr. (1)  
*Glyphium* Nitschke ex F. Lehm. (ca. 4)  
*Haematomyxa* Sacc (2)  
*Holmiella* Petrini, Samuels & E. Müll. (4)  
*Hysteropatella* Rehm (3)  
*Hysteropeltella* Petr. (1)  
*Lahmiomyces* Cif. & Tomas. (1)  
*Lecanidiella* Sherwood (1)  
*Lirellodisca* Aptroot (1)  
*Murangium* Seaver (1)  
*Patellaria* Fr. (12)  
*Poetschia* Körb. (4)  
*Pseudoparodia* Theiss. & Syd. (1)  
*Rhizodiscina* Hafellner (1)  
*Rimula* Velen. (1)  
*Schrakia* Hafellner (1)  
*Stratisporella* Hafellner (1)

*Tryblidaria* (Sacc.) Rehm (9)

***Phaeotrichales*** Ariyaw., Jian K. Liu & K.D. Hyde

***Phaeotrichaceae*** Cain

*Echinoascotheca* Matsush. (1)

*Phaeotrichum* Cain & M.E. Barr (2)

*Trichodelitschia* Munk (4)

***Stigmatodiscales*** Voglmayr & Jaklitsch

***Stigmatodiscaceae*** Voglmayr & Jaklitsch

*Stigmatodiscus* Voglmayr & Jaklitsch (= *Asterodiscus* Voglmayr et al.) (6)\*

***Strigulales*** Lücking, M.P. Nelsen & K.D. Hyde

***Strigulaceae*** Zahlbr. (= *Phyllobatheliaceae* Bitter & F. Schill.)

*Dichoporis* Clem. (18)

*Flagellostrigula* Lücking & S.H. Jiang (1)

*Flavobathelium* Lücking, Aptroot & G. Thor (1)

*Phyllobathelium* (Müll. Arg.) Müll. Arg (8)

*Phyllocharis* Fée (1)

*Phyllocraterina* Sérus. & Aptroot (= *Phyllocratera* Sérus. & Aptroot) (2)

*Phylloporis* Clem. (ca. 10)

*Puiggariella* Speg. (3)

*Raciborskiella* Höhnelt (2)

*Racoplaca* Fée (5)

*Serusiauxiella* S.H. Jiang, Lücking & J.C. Wei (3)

*Strigula* Fr. (ca. 30)

*Swinscowia* S.H. Jiang & Lücking (33)

***Tenuitholiascaceae*** S.H. Jiang, Lücking & J.C. Wei\*

*Tenuitholiascus* S.H. Jiang, Lücking & J.C. Wei. (1)

***Superstratomyces*** van Nieuwenh., Miądl., Houbraken, Adan, Lutzoni & Samson

***Superstratomyces*** van Nieuwenh., Miądl., Houbraken, Adan, Lutzoni & Samson

*Superstratomyces* van Nieuwenh., Miądl. & Samson (4)

***Trypetheliales*** Lücking, Aptroot & Sipman

***Polycoccaceae*** Ertz, Hafellner & Diederich

*Clypeococcum* D. Hawksw. (ca. 10)

*Polycoccum* Saut. ex Körb. (ca. 60)

***Trypetheliaceae*** Zenker

*Alloarthopyrenia* Phukhams., Lücking & K.D. Hyde (1)

*Aptrootia* Lücking & Sipman (3)

*Architrypethelium* Aptroot (8)

*Astrothelium* Eschw. (= *Campylotheium* Müll.) (ca. 275)

*Bathelium* Ach. (16)

*Bogoriella* Zahlbr. (= *Distothelia* Aptroot) (29)

*Constrictolumina* Lücking, M.P. Nelsen & Aptroot (9)

*Dictyomeridium* Aptroot, M.P. Nelsen & Lücking (7)

*Macroconstrictolumina* Lücking, R. Miranda & Aptroot (5)

*Marcelaria* Aptroot (= *Buscalonia* Sambo) (3)

*Nigrovothelium* Lücking, M.P. Nelsen & Aptroot (3)

*Novomicrothelia* Aptroot, M.P. Nelsen & Lücking (1)  
*Polymeridium* (Müll. Arg.) R.C. Harris (51)  
*Polypyrenula* D. Hawksw. (1)  
*Pseudobogoriella* Lücking, R. Miranda & Aptroot (15)  
*Pseudopyrenula* Müll. Arg. (21)  
*Schummia* Lücking, R. Miranda & Aptroot (1)  
*Trypethelium* Sprengel (16)  
*Viridothelium* Lücking, M.P. Nelsen & Aptroot (= ?*Exiliseptum* R.C. Harris *vide* Hongsanan et al. 2020) (11)

***Tubeufiales*** Boonmee & K.D. Hyde (= *Bezerromycetales* J.D.P. Bezerra et al.; = *Wiesneriomycetales* J.D.P. Bezerra et al.)

***Bezerromycetaceae*** J.D.P. Bezerra, Souza-Motta & Crous

*Bezerromyces* J.D.P. Bezerra, Souza-Motta & Crous (2)  
*Neorhamphoria* Boonmee, E. Hüseyin & F. Selçuk (1)  
*Xiliomyces* J.D.P. Bezerra, Souza-Motta & Crous (1)

***Tubeufiaceae*** M.E. Barr

*Acanthohelicospira* Boonmee & K.D. Hyde (4)  
*Acanthophiobolus* Berl. (6)  
*Acanthostigma* De Not. (64)  
*Acanthostigmia* Höhn. (7)  
*Acanthotubeufia* Y.Z. Lu & K.D. Hyde (1)  
*Aquaphila* Goh, K.D. Hyde & W.H. Ho (2)  
*Artocarpomyces* Subram. (1)  
*Berkleasmium* Zobel (ca. 40)  
*Bifrontia* Norman (2)  
*Boerlagiomyces* Butzin (9)  
*Camporesiomyces* D.P. Wei & K.D. Hyde (1)  
*Chaetosphaerulina* I. Hino (6)  
*Chlamydotubeufia* Boonmee & K.D. Hyde (8)  
*Dematiohelicoma* Y.Z. Lu, J.C. Kang & K.D. Hyde (2)  
*Dematiohelicomyces* Y.Z. Lu, Boonmee & K.D. Hyde (1)  
*Dematiohelicosporum* Y.Z. Lu, J.K. Liu & K.D. Hyde (1)  
*Dematiotubeufia* Y.Z. Lu, Boonmee & K.D. Hyde (1)  
*Dictyospora* Brahaman., Y.Z. Lu, Boonmee & K.D. Hyde (1)  
*Discotubeufia* Jayasiri, E.B.G. Jones & K.D. Hyde (1)  
*Helicangiospora* Boonmee, Bhat & K.D. Hyde (1)  
*Helicoarctatus* Y.Z. Lu, J.C. Kang & K.D. Hyde (1)  
*Helicodochium* J.S. Monteiro, R.F. Castañeda, A.C. Cruz & Gusmão (2)  
*Helicohyalinum* Y.Z. Lu, J.K. Liu & K.D. Hyde (2)  
*Helicoma* Corda (ca. 40)  
*Helicomycetes* Link (14)  
*Helicosporium* Nees (ca. 15)  
*Helicotruncatum* Y.Z. Lu, J.C. Kang & K.D. Hyde (1)  
*Helicotubeufia* Y.Z. Lu & J.K. Liu (3)  
*Kamalomyces* R.K. Verma, N. Sharma & Soni (5)  
*Kevinhydea* N.G. Liu, Y.Z. Lu & J.K. Liu (1)  
*Manoharachariella* Bagyan., N.K. Rao & Kunwar (4)  
*Muripulchra* Z.L. Luo, Hong Y. Su & K.D. Hyde (1)  
*Neoacanthostigma* Boonmee, Bhat & K.D. Hyde (8)  
*Neochlamydotubeufia* Y.Z. Lu, Boonmee & K.D. Hyde (2)

*Neohelicoma* Y.Z. Lu, Boonmee & K.D. Hyde (1)  
*Neohelicomyces* Z.L. Luo, Bhat & K.D. Hyde (3)  
*Neohelicosporium* Y.Z. Lu, J.C. Kang & K.D. Hyde (7)  
*Neotubeufia* Chaiwan, Boonmee, Y.Z. Lu & K.D. Hyde (1)  
*Pleurohelicosporium* Y.Z. Lu, J.C. Kang & K.D. Hyde (1)  
*Podonectria* Petch (11)  
*Pseudohelicomyces* Y.Z. Lu, J.K. Liu & K.D. Hyde (5)  
*Pseudohelicoon* Y.Z. Lu & K.D. Hyde (2)  
*Tamhinispora* Rajeshkumar & Rahul Sharma (2)  
*Thaxteriella* Petr. (15)  
*Thaxteriellopsis* Sivan., Panwar & S.J. Kaur (3)  
*Tubeufia* Penz. & Sacc. (ca. 60)

***Wiesneriomycetaceae*** Suetrong, Rungjind., Somrith. & E.B.G. Jones

*Parawiesneriomyces* Crous & M.J. Wingf. (1)  
*Phalangispora* Nawawi & J. Webster (3)  
*Pseudogliophragma* Phadke & V.G. Rao (1)  
*Setosynnema* D.E. Shaw & B. Sutton (3)  
*Speiropsis* Tubaki (8)  
*Wiesneriomyces* Koord. (4)

***Valsariales*** Jaklitsch, K.D. Hyde & Voglmayr

***Valsariaceae*** Jaklitsch, K.D. Hyde & Voglmayr

*Bambusaria* Jaklitsch, D.Q. Dai, K.D. Hyde & Voglmayr (1)  
*Myrmaecium* Nitschke ex Fuckel (ca. 3)  
*Valsaria* Ces. & De Not. (140 epithets)

***Venturiales*** Y. Zhang ter, C.L. Schoch & K.D. Hyde

***Sympoventuriaceae*** Y. Zhang ter, C.L. Schoch & K.D. Hyde

*Acroconidiellina* M.B. Ellis (4)  
*Clavatispora* Boonmee & K.D. Hyde (1)  
*Fusicladium* Bonord. (75)  
*Matsushimaea* Subram. (4)  
*Mycosisymbrium* Carris (1)  
*Ochroconis* de Hoog & Arx (28)  
*Sympoventuria* Crous & Seifert (3)  
*Veronaeopsis* Arzanlou & Crous (1)  
*Verruconis* Samerp., H.J. Choi, van den Ende, Horré & de Hoog (5)  
*Yunnanomyces* Tibpromma & K.D. Hyde (2)

***Venturiaceae*** E. Müll. & Arx ex M.E. Barr

*Apiosporina* Höhn. (6)  
*Atopospora* Petr. (4)  
*Caproventuria* U. Braun (2)  
*Coleroa* (Fr.) Rabenh. (56)  
*Dimeriella* Speg. (51)  
*Dimerosporiopsis* Henn. (1)  
*Magnohelicospora* R.F. Castañeda, Hern.-Restr., Gené & Guarro (2)  
*Metacoleroa* Petr. (1)  
*Neocoleroa* Petr. (6)  
*Protoventuria* Berl. & Sacc. (45)  
*Pseudoanungitea* Crous (3)\*

*Pseudoparodiella* F. Stevens (1)  
*Tyrannosorus* Unter. & Malloch (1)  
*Venturia* Sacc. (ca. 60)

***Venturiales*** genera *incertae sedis*

*Cylindrosympodioides* Crous & M.J. Wingf. (1)  
*Cylindrosyposium* W.B. Kendr. & R.F. Castañeda (12)  
*Lasiobotrys* Kunze (9)

***Zeloasperisporiales*** Hongsanan & K.D. Hyde

***Zeloasperisporiaceae*** Crous  
*Zeloasperisporium* R.F. Castañeda (8)

***Dothideomycetes*** families *incertae sedis*

***Alinaceae*** Boonmee & K.D. Hyde  
*Alina* Racib. (1)

***Argynnaceae*** Shearer & J.L. Crane

*Argynna* Morgan (1)  
*Lepidopterella* Shearer & J.L. Crane (2)

***Ascoporiaceae*** Kutorga & D. Hawksw.

*Ascoporia* Samuels & A.I. Romero (1)

***Aulographaceae*** Luttr. ex P.M. Kirk, P.F. Cannon & J.C. David

*Aulographum* Lib. (ca. 30)  
*Echidnodes* Theiss. & Syd. (31)  
*Lembosiella* Sacc. (1)  
*Thyriopsis* Theiss. & Syd. (3)

***Balladynaceae*** Boonmee & K.D. Hyde

*Balladyna* Racib. (41)  
*Balladynocallia* Bat. (3)  
*Balladynopsis* Theiss. & Syd. (10)

***Cleistosphaeraceae*** Boonmee & K.D. Hyde

*Cleistosphaera* Syd. & P. Syd. (1)

***Coccoideaceae*** P. Henn. ex Sacc. & D. Sacc.

*Coccoidea* P. Henn. (4)  
*Cocoidella* Höhn. (9)  
*Englerodothis* Theiss. & Syd. (3)

***Cookellaceae*** Höhn. ex Saccardo & Trotter

*Cookella* Sacc. (4)  
*Pycnoderma* Syd. & P. Syd. (2)

***Dimeriaceae*** E. Müll. & Arx ex Arx & E. Müll.

*Dimerium* (Sacc. & P. Syd.) McAlpine (79)

***Dubujianaceae*** D. Pem, Doilom & K.D. Hyde

*Dubujiana* D.R. Reynolds & G.S. Gilbert (1)



***Dysrhynchisceae*** Boonmee & K.D. Hyde

*Dysrhynchis* Clem. (4)

***Endosporiaceae*** D. Pem

*Endosporium* Tsuneda (2)

***Englerulaceae*** P. Henn.

*Allosoma* Syd. (5)

*Digitosarcinella* S. Hughes (1)

*Englerula* P. Henn. (13)

*Goosia* B. Song (1)

*Parenglerula* Höhn. (7)

*Rhytidenglerula* Höhn. (11)

*Sarcinella* Sacc. (ca. 70)

*Thrauste* Theiss. (3)

***Eriomycetaceae*** Huanraluek & K.D. Hyde

*Eriomyces* Huanraluek, Thambugala & K.D. Hyde (1)

*Funbolia* Crous & Seifert (1)

*Heleiosa* Kohlm., Volkm.-Kohlm. & O.E. Erikss. (1)

*Phellinocrescentia* Crous & Decock (1)

*Pseudopassalora* Pseudopassalora Crous (1)

***Homortomycetaceae*** Thambug., A.J.L. Phillips & K.D. Hyde

*Homortomyces* Crous & M.J. Wingf. (2)

***Hyalomeliolinaceae*** Boonmee & K.D. Hyde

*Hyalomeliolina* F. Stevens (2)

***Leptopeltidaceae*** Höhn. ex Trotter

*Dothiopeltis* E. Müll. (2)

*Leptopeltis* Höhn. (11)

*Ronnigeria* Petr. (1)

*Staibia* Bat. & Peres (1)

***Macrovalsariaceae*** D. Pem, Doilom & K.D. Hyde

*Macrovalsaria* Petr. (1)

***Meliolinaceae*** S. Hughes

*Briania* D.R. Reynolds (1)

*Meliolina* Syd. & P. Syd. (ca. 40)

***Mesnieraceae*** Arx & E. Müll.

*Bondiella* Piroz. (1)

*Mesniera* Sacc. & P. Syd. (1)

*Stegasphaeria* Syd. & P. Syd. (3)

***Naetrocymbaceae*** Höhn. ex R.C. Harris

*Bonaria* Bat. (4)

*Jarxia* D. Hawksw. (2)

*Leptorhaphis* Körb. (14)

*Naetrocymbe* Körb. (1)

- Tomasellia* A. Massal. (ca. 5)
- Nematotheciaceae*** Boonmee & K.D. Hyde  
*Nematothecium* Syd. & P. Syd. (5)  
*Nematostigma* Syd. & P. Syd. (5)  
*Ophioparodia* Petr. & Cif. (1)
- Neoparodiaceae*** Boonmee & K.D. Hyde  
*Neoparodia* Petr. & Cif. (1)
- Palawaniaceae*** Mapook & K.D. Hyde  
*Palawania* Syd. & P. Syd. (2)
- Paranectriellaceae*** S. Boonmee & K.D. Hyde  
*Paranectriella* (Henn. ex Sacc. & D. Sacc.) Magnus. (= *Araneomyces* Höhn.) (9)  
*Puttemansia* Henn. (18)
- Parodiellaceae*** Theiss. & H. Syd. ex M.E. Barr  
*Parodiella* Speg. (4)
- Perisporiopsidaceae*** E. Müll. & Arx ex R. Kirschner & T.A. Hofm. (= *Parodiopsidaceae* Toro)  
*Asteronia* (Sacc.) Henn. (2)  
*Byssocallis* Syd. (3)  
*Chevalieropsis* G. Arnaud (1)  
*Parodiellina* Henn. ex G. Arnaud (1)  
*Perisporiopsis* Henn. (22)
- Phaeodimeriellaceae*** Boonmee, Mapook & K.D. Hyde  
*Phaeodimeriella* Speg. (30)
- Pododimeriaceae*** Boonmee & K.D. Hyde  
*Chaetoscutula* E. Müll. (1)  
*Pododimeria* E. Müll. (4)
- Polyclypeolinaceae*** Boonmee & K.D. Hyde  
*Polyclypeolina* Bat. & I.H. Lima (1)
- Polystomellaceae*** Theiss. & H. Syd.  
*Dermatodothella* Viégas (1)  
*Dothidella* Speg. (2)  
*Munkiella* Speg. (3)  
*Parastigmatea* Doidge (3)
- Protoscyphaceae*** Kutorga & D. Hawksw.  
*Protoscypha* Syd. (2)
- Pseudoperisporiaceae*** Toro  
*Bryomyces* Döbbeler (12)  
*Eudimeriolum* Speg. (8)  
*Lasiostemma* Theiss. (5)  
*Nematostoma* Syd. & P. Syd. (13)

***Pseudorobillardaceae*** Crous

*Pseudorobillarda* M. Morelet (12)

***Pyrenidiaceae*** Zahlbr.

*Pyrenidium* Nyl. (11)

***Seynesiopeltidaceae*** K.D. Hyde

*Seynesiopeltis* F. Stevens & R.W. Ryan (1)

***Stomatogeneaceae*** Boonmee & K.D. Hyde

*Stomatogene* Theiss. (3)

***Thyrynulaceae*** X.Y. Zeng, S. Hongsanan & K.D. Hyde

*Blastacervulus* H.J. Swart (2)

*Paraopeba* V.P. Abreu, A.A.M. Gomes, Firmino & O.L. Pereira (1)

*Thyrynula* Petr. & Syd. (= *Alysiidiella* Crous) (1)

***Toroaceae*** Boonmee & K.D. Hyde

*Toroa* Syd. (2)

***Trichopeltinaceae*** Bat., C.A.A. Costa & Cif.

*Acrogenotheca* Cif. & Bat. (3)

*Brefeldiella* Speg. (4)

*Saccardinula* Speg. (11)

*Trichopeltella* Höhn. (1)

*Trichopeltheca* Bat. (2)

*Trichopeltina* Theiss. (2)

*Trichothyrynula* Petr. (2)

***Trichothyriaceae*** Theiss.

*Lichenopeltella* Höhn. (48)

*Macrographa* Etayo (1)

*Pachythyrium* G. Arnaud ex Spooner & P.M. Kirk (1)

*Trichothyrium* Speg. (12)

***Vizellaceae*** H.J. Swart

*Acarella* Syd. (1)

*Blasdalea* Sacc. & P. Syd. (1)

*Vizella* Sacc. (11)

***Dothideomycetes*** genera *incertae sedis*

*Acanthorus* Bat. & Cavalc. (1)

*Acanthostigmella* Höhn. (6)

*Achorella* Theiss. & Syd. (10)

*Actinomyxa* Syd. & P. Syd. (1)

*Alascozpora* Raja, Violi & Shearer (1)

*Ampullifera* Deighton (6)

*Anguillosporella* U. Braun (2)

*Anopeltis* Bat. & Peres (1)

*Arkoola* J. Walker & Stovold (1)

*Armata* W. Yamam. (1)

*Ascominuta* Ranghoo & K.D. Hyde (2)

*Asterinema* Bat. & Gayão (3)  
*Asterodothis* Theiss. (1)  
*Asteromassaria* Höhn. (12)  
*Asteromella* Pass. & Thüm. (ca. 265)  
*Asteroporum* Müll. Arg. (7)  
*Auerswaldia* Sacc. (ca. 20)  
*Bactrodesmium* Cooke (ca. 50)  
*Bahusakala* Subram. (4)  
*Brachyconidiella* R.F. Castañeda & W.B. Kendr. (1)  
*Brooksia* Hansf. (1)  
*Bryorella* Döbbeler (10)  
*Bryostroma* Döbbeler (8)  
*Bryothele* Döbbeler (2)  
*Bysso gene* Syd. (2)  
*Callebaea* Bat. (1)  
*Calyptra* Theiss. & Syd. (5)  
*Capillataspora* K.D. Hyde (1)  
*Caryosporella* Kohlm. (1)  
*Catulus* Malloch & Rogerson (1)  
*Ceramoclasteropsis* Bat. & Cavalc. (2)  
*Ceratophoma* Höhn. (2)  
*Cercidospora* Körb. (101)  
*Cerodothis* Muthappa (1)  
*Chaetocrea* Syd. (1)  
*Chaetosticta* Petr. & Syd. (3)  
*Chionomyces* Deighton & Piroz. (7)  
*Chuppia* Deighton (2)  
*Cilioplea* Munk (ca. 10)  
*Cirsosina* Bat. & J.L. Bezerra (2)  
*Clavariopsis* De Wild. (ca. 5)  
*Clypeostroma* Theiss. & Syd. (ca. 3)  
*Cocciscia* Norman (2)  
*Coccochora* Höhn. (4)  
*Coccochorina* Hara (2)  
*Coccodothis* Theiss. & Syd. (2)  
*Comesella* Speg. (1)  
*Comminutispora* A.W. Ramaley (1)  
*Coniosporium* Link (ca. 20)  
*Crauatamyces* Viégas (1)  
*Crotone* Theiss. & Syd. (1)  
*Cryomyces* Selbmann, de Hoog, Mazzaglia, Friedmann & Onofri (4)  
*Cyclothea* Theiss. (9)  
*Dactuliophora* C.L. Leakey (5)  
*Dawsomyces* Döbbeler (2)  
*Dawsophila* Döbbeler (3)  
*Dermatodothis* Racib. ex Theiss. & Syd. (6)  
*Dianesea* Inácio & P.F. Cannon (1)  
*Dictyoasterina* Hansf. (1)  
*Dictyodochium* Sivan. (1)  
*Dictyopeltis* Theiss. (6)  
*Dictyostomiopelta* Viégas (1)  
*Dictyothyriella* Speg. (1)

*Dictyothyria* Theiss. (1)  
*Dictyothyrium* Theiss. (2)  
*Didymocyrtidium* Vain. (2)  
*Didymolepta* Munk (2)  
*Didymopleella* Munk (3)  
*Diplochorina* Gutner (1)  
*Dothichiza* Lib. ex Roum. (15)  
*Dothideopsella* Höhn. (1, but more epithets exist)  
*Dothivalsaria* Petr. (1)  
*Dubitatio* Speg. (1)  
*Echinothecium* Zopf (2)  
*Elmerinula* Syd. (1)  
*Epibelonium* E. Müll. (1)  
*Eriomyopsis* Speg. (13)  
*Eriothyrium* Speg. (1, but more epithets exist)  
*Eupelte* Syd. (5)  
*Excipulariopsis* P.M. Kirk & Spooner (1)  
*Extrusothecium* Matsush. (2)  
*Fusicladiella* Höhn. (5)  
*Gibbera* Fr. (ca. 28)  
*Gilletiella* Sacc. & P. Syd. (3)  
*Globoa* Bat. & H. Maia (2)  
*Globulina* Speg. (1 *vide* Kirk et al. 2008)  
*Gloeodiscus* Dennis (1)  
*Govindua* Bat. & H. Maia (1)  
*Griggsia* F. Stevens & Dalbey (1)  
*Halokirschsteiniothelia* Boonmee & K.D. Hyde (1)  
*Hansfordiella* S. Hughes (8)  
*Hansfordiellopsis* Deighton (5)  
*Hansfordiopsis* Bat. (1)  
*Harknessiella* Sacc. (1)  
*Helminthopeltis* Sousa da Câmara (1)  
*Heptameria* Rehm & Thuem. (2)  
*Heptaster* Cif., Bat. & Nascim. (3)  
*Heteroconium* Petr. (21)  
*Heterosphaeriopsis* Hafellner (1)  
*Hidakaea* I. Hino & Katum. (2)  
*Hyalocrea* Syd. & P. Syd. (4)  
*Hyaloscolecostroma* Bat. & J. Oliveira (1)  
*Hyalosphaera* F. Stevens (4)  
*Hyalotheles* Speg. (1)  
*Hypobryon* Döbbeler (7)  
*Hysteropsis* Rehm (4)  
*Isomunkia* Theiss. & Syd. (1)  
*Isthmospora* F. Stevens (3)  
*Jaffuela* Speg. (1)  
*Kabatia* Bubák (ca. 10)  
*Keratosphaera* H.P. Upadhyay (6)  
*Kriegeriella* Höhn. (4)  
*Krishnamyces* Hosag. (1)  
*Kullhemia* P. Karst. (2)  
*Kusanobotrys* P. Henn. (2)

*Lanatosphaera* Matzer (2)  
*Lautitia* S. Schatz (1)  
*Lazarenkoa* Zerova (1)  
*Lembosiopeltis* Bat. & J.L. Bezerra (2)  
*Leptomeliola* Höhn. (13)  
*Letendraeopsis* K.F. Rodriguez & Samuels (1)  
*Leveillella* Theiss. & Syd. (1)  
*Leveillina* Theiss. & Syd. (2)  
*Lichenotubeufia* Etayo (5)  
*Licopolia* Sacc., Syd. & P. Syd. (2)  
*Lignosphaeria* Boonmee, Thambug. & K.D. Hyde (2)  
*Limaciniopsis* Mend. (1)  
*Lineolata* Kohlm. & Volkm.-Kohlm. (1)  
*Linopeltis* I. Hino & Katum. (2)  
*Lophionema* Sacc. (9)  
*Lucidascocarpa* A. Ferrer, Raja & Shearer (1)  
*Macowaniella* Doidge (2)  
*Maheshwaramyces* Hosag. (2)  
*Maireella* Syd. & Maire (ca. 5)  
*Malacaria* Syd. (2)  
*Manginula* G. Arnaud (ca. 5)  
*Marquesius* L.B. Conç., R.F. Castañeda & Gusmão (1)  
*Massariola* Füsting (2)  
*Maublancia* G. Arnaud (1)  
*Melioliphila* Speg. (7)  
*Mendoziopeltis* Bat. (4)  
*Microcyclella* Theiss. (1)  
*Microdothella* Syd. & P. Syd. (2)  
*Monoblastiopsis* R.C. Harris & C.A. Morse (2)  
*Monodictys* S. Hughes (ca. 50)  
*Monorhizina* Theiss. & Syd. (1)  
*Montagnella* Speg. (9)  
*Moriolomyces* Cif. & Tomas. (1)  
*Muricopeltis* Viégas (1)  
*Muroia* I. Hino & Katum. (1)  
*Mycocryptospora* J. Reid & C. Booth (1)  
*Mycodidymella* C.Z. Wei, Y. Harada & Katum. (1)  
*Mycoglaena* Höhn. (16)  
*Mycoporellum* Müll. Arg. (7)  
*Mycoporopsis* Müll. Arg. (ca. 10)  
*Mycothyridium* Petr. (30)  
*Myriangiopsis* P. Henn. (2)  
*Myriostigmella* G. Arnaud (1)  
*Mytilostoma* P. Karst. (2)  
*Myxophora* Döbbeler & Poelt (7)  
*Nannfeldtia* Petr. (2)  
*Neodactylaria* Guevara-Suarez, Deanna A. Sutton, Wiederh. & Gené (1)  
*Neopeckia* Sacc. (1 *vide* Kirk et al. 2008)  
*Neosporidesmium* Mercado & J. Mena (15)  
*Neottiosporina* Subram. (11)  
*Neoventuria* Syd. & P. Syd. (1)  
*Ocala* Raja & Shearer (1)

*Oletheriostrigula* Huhndorf & R.C. Harris (1)  
*Omphalospora* Theiss. & Syd. (2)  
*Oncopodiella* G. Arnaud ex Rifai (13)  
*Ophioirenina* Sawada & W. Yamam. (1)  
*Ophiotrichum* Kunze (3)  
*Otthia* Nitschke ex Fuckel (11)  
*Parmulariella* P. Henn. (1)  
*Paropodia* Cif. & Bat. (1)  
*Passeriniella* Berl. (7)  
*Passerinula* Sacc. (1)  
*Pauahia* F. Stevens (1)  
*Peltaster* Syd. & P. Syd. (8)  
*Peltasterella* Bat. & H. Maia (1)  
*Pendulispora* M.B. Ellis (1)  
*Perischizon* P. Syd. (3)  
*Peroschaeta* Bat. & A.F. Vital (1)  
*Petrakina* Cif. (3)  
*Petrakiopeltis* Bat., A.F. Vital & Cif. (1)  
*Phacidina* Höhn. (1)  
*Phaeocyrtidula* Vain. (2)  
*Phaeopeltosphaeria* Berl. & Peglion (2)  
*Phaeosclera* Sigler, Tsuneda & J.W. Carmich. (1)  
*Phaeosperma* Nitschke ex Fuckel (1)  
*Phaeostigme* Syd. & P. Syd. (6)  
*Phaeotomasellia* Katum. (1)  
*Phanerococcus* Cif. (1)  
*Philobryon* Döbbeler (1)  
*Philonectria* Hara (3)  
*Phragmaspidium* Bat. (3)  
*Phragmogibbera* Samuels & Rogerson (3)  
*Phragmoscutella* Woron. & Abramov ex Woron. (1)  
*Phragmosperma* Theiss. & Syd. (1)  
*Phycorella* Döbbeler (1)  
*Physalosporopsis* Bat. & H. Maia (1)  
*Pirozynskia* Subram. (1)  
*Placoasterina* Toro (1)  
*Placodothis* Syd. (1)  
*Placomelan* Cif. (1)  
*Placosphaeria* (De Not.) Sacc. (1, but several other epithets exist)  
*Plagiostromella* Höhn. (1)  
*Plejobolus* (E. Bommer et al.) O.E. Erikss. (1 or 2 species)  
*Plenotrichaius* Bat. & Valle (1)  
*Pleomerium* Speg. (1)  
*Pleotrichiella* Sivan. (1)  
*Polycyclinopsis* Bat., A.F. Vital & I.H. Lima (1)  
*Polyrhizon* Theiss., Syd. & P. Syd. (2)  
*Polysporidiella* Petr. (1)  
*Polystomellopsis* F. Stevens (1)  
*Proliferosphaera* T.P. Devi (1)  
*Pseudoarthrographis* Crous & Thangavel (1)  
*Pseudomorfea* Punith. (1)  
*Pseudopleospora* Petr. (1)

*Punctillum* Petr. & Syd. (1)  
*Pyrenobotrys* Theiss. & Syd. (1)  
*Pyrenochium* Link (1)  
*Pyrenocyclus* Petr. (1)  
*Pyrenostigma* Syd. (1)  
*Radulidium* Arzanlou, W. Gams & Crous (3)  
*Rhizotexis* Theiss. & Syd. (1)  
*Rhopoglyphus* Nitschke ex Fuckel (6)  
*Rosellinula* R. Sant. (4)  
*Rosenscheldia* Speg. (1)  
*Roumegueria* (Sacc.) P. Henn. (1)  
*Rupestriomyces* Lei Su, Li Y. Guo & Xing Z. Liu (3)  
*Sapucchaka* K. Ramakr. (2)  
*Saxomyces* L. Selbmann & D. Isola (2)  
*Scleroconidioma* Tsuneda, Currah & Thormann (1)  
*Scolecobonaria* Bat. (2)  
*Scolecoxyphium* Cif. & Bat. (5)  
*Scolionema* Theiss. & Syd. (1)  
*Semisphaeria* K. Holm & L. Holm (1)  
*Septoidium* G. Arnaud (ca. 7)  
*Shearia* Petr. (2)  
*Shivamyces* Hosag. (2)  
*Sivanesaniella* Gawande & D.K. Agarwal (1)  
*Solicorynespora* R.F. Castañeda & W.B. Kendr. (29)\*  
*Soloacrosporiella* Crous & M.J. Wingf. (1)  
*Spilodochium* Syd. (4)  
*Spissiomycetes* Lei Su, Li Y. Guo & Xing Z. Liu (2)  
*Stegothyrium* Höhn. (2)  
*Stephanotheca* Syd. & P. Syd. (4)  
*Stigmatodothis* Syd. & P. Syd. (1)  
*Stigmatophragma* Tehon & G.L. Stout (1)  
*Symphaster* Theiss. & Syd. (1)  
*Taphrophila* Scheuer (4)  
*Teichosporella* (Sacc.) Sacc. (26)  
*Teratoschaeta* Bat. & Fons.) (1)  
*Tetracrium* Henn. (7)  
*Thalassoascus* Ollivier (3)  
*Thelenidia* Nyl. (1)  
*Thryptospora* Petr. (1)  
*Tilakiella* Srinivas. (1)  
*Tomeoa* I. Hino (1)  
*Torulopsiella* Bender (2)  
*Trematosphaeriopsis* Elenkin (1)  
*Tretospora* M.B. Ellis (8)  
*Trichodothella* Petr. (1)  
*Trichodothis* Theiss. & Syd. (3)  
*Trichometasphaeria* Munk (8)  
*Trichothyriella* Theiss. (1)  
*Tropospora* P. Karst. (4)  
*Uredinophila* Rossman (2)  
*Wentiomycetes* Koord. (ca. 50)  
*Westea* H.J. Swart (1)



*Wettsteinina* Höhn. (30)  
*Xenomeris* Syd. (11)  
*Xenosporium* Penz. & Sacc. (18)  
*Xenostomella* Syd. (2)  
*Xylopezia* Höhn. (ca. 3)  
*Yoshinagaia* Henn. (1)  
*Yoshinagella* Höhn. (4)

***Eurotiomycetes*** Tehler ex O.E. Eriksson & K. Winka

***Chaetothyriomycetidae*** Doweld

***Chaetothyriales*** M.E. Barr

***Chaetothyriaceae*** Hansf. ex M.E. Barr

*Actinocymbe* Höhn. (3)  
*Aithaloderma* Syd. & P. Syd. (13)  
*Aphanophora* Réblová & Unter. (1)  
*Arthrophia* (D.J. Soares, R.W. Barreto & U. Braun) W.S. Lisboa, Meir. Silva & R.W. Barreto (1)\*  
*Beelia* F. Stevens & R.W. Ryan (3)  
*Camptophora* Réblová & Unter. (2)\*  
*Ceramothyrium* Bat. & H. Maia (35)  
*Ceratocarpia* Rolland (2)  
*Chaetothyriomyces* Pereira-Carv., Inácio & Dianese (1)  
*Chaetothyrium* Speng. (51)  
*Cyphellophoriella* Crous & A.J. Sm. (1)  
*Euceramia* Bat. & Cif. (3)  
*Longihyalospora* D.S. Tennakoon, C.H. Kuo & K.D. Hyde (2)  
*Microcallis* Syd. (10)  
*Nullicomyces* Crous (1)  
*Phaeosaccardinula* P. Henn. (27)  
*Stanhughesia* Constant. (1)  
*Treubiomyces* Höhn. (7)  
*Vonarxia* Bat. (2)  
*Yatesula* Syd. & P. Syd. (2)

***Coccodiniaceae*** Höhn. ex O.E. Erikss.

*Coccodinium* A. Massal. (4)  
*Dennisiella* Bat. & Cif. (= *Microxiphium* (Harv. ex Berk. & Desm.) Thüm.) (9)  
*Limacinula* Höhn. (17)

***Cyphellophoraceae*** Réblová & Unter.

*Anthopsis* Fil. March., A. Fontana & Luppi Mosca (2)\*  
*Cyphellophora* G.A. de Vries (25)\*

***Epibryaceae*** S. Stenroos & Gueidan

*Epibryon* Döbbeler (ca. 40)

***Herpotrichiellaceae*** Munk

*Aculeata* W. Dong, H. Zhang & K.D. Hyde (1)\*  
*Brycekendrickomyces* Crous & M.J. Wingf. (1)  
*Capronia* Sacc. (ca. 81)  
*Cladophialophora* Borelli (35)\*  
*Exophiala* J.W. Carmich. (51)\*

*Fonsecaea* Negroni (8)\*  
*Marinophialophora* J.F. Li, Phook. & K.D. Hyde (1)  
*Melanoctona* Qing Tian, Doilom & K.D. Hyde (1)  
*Metulocladosporiella* Crous, Schroers, J.Z. Groenew., U. Braun & K. Schub. (6)  
*Minimelanolocus* R.F. Castañeda & Heredia (33)\*  
*Phialophora* Medlar (7)\*  
*Pleomelogramma* Speg. (2)  
*Rhinocladiella* Nannf. (17)  
*Sorocybe* Fr. (3)  
*Thysanorea* Arzanlou, W. Gams & Crous (2)\*  
*Veronaea* Cif. & Montemart. (20)

***Lyrommataceae*** Lücking

*Lyromma* Bat. (7)

***Microtheliopsidaceae*** O.E. Erikss.

*Microtheliopsis* Müll. Arg. (4)

***Paracladophialophoraceae*** Crous

*Paracladophialophora* Crous (2)\*

***Pyrenotrichaceae*** Zahlbr

*Pyrenothrix* Riddle (2)

*Neophaeococcomyces* Crous & M.J. Wingf. (2)

***Trichomeriaceae*** Chomnunti & K.D. Hyde (= *Strelitzianaceae* Crous & M.J. Wingf.)

*Arthrocladium* Papendorf (4)\*

*Bradomyces* Hubka, Réblová, Selbmann & M. Kolařík (3)\*

*Knufia* L.J. Hutchison & Unter. (13)\*

*Lithohypha* Selbmann & Isola (1)

*Lithophila* Selbmann & Isola (1)\*

*Neostrelitziana* Crous & M.J. Wingf. (1)

*Strelitziana* Arzanlou & Crous (8)

*Trichomerium* Speg. (28)

***Chaetothyriales*** genera *incertae sedis*

*Atrokyliindriopsis* Y.R. Ma & X.G. Zhang (1)

*Bacillicladium* Hubka, Réblová & Thureborn (1)\*

*Lichenodiplis* Dyko & D. Hawksw. (= *Laeviomycetes* D. Hawksw.) (13)

*Lichenodiplisiella* S.Y. Kondr. & Kudratov (1)

*Melnikomycetes* Crous & U. Braun (1)

*Minutoexcipula* V. Atienza & D. Hawksw. (7)

*Muellerella* Hepp (14)\*

*Pleostigma* Kirschst. (9)

*Sarcinomyces* Lindner (5)

*Uncispora* R.C. Sinclair & Morgan-Jones (3)

***Phaeomoniellales*** K.H. Chen, A.E. Arnold, Gueidan & Lutzoni

***Celotheliaceae*** Lücking, Aptroot & Sipman (= *Phaeomoniellaceae* P.M. Kirk)

*Aequabiliella* Crous (1)

*Celerioriella* Crous (3)

*Celothelium* A. Massal. (8)

*Minutiella* Crous (1)  
*Moristroma* A.I. Romero & Samuels (4)  
*Neophaeomoniella* Rooney-Latham & Crous (3)  
*Paraphaeomoniella* Crous (1)  
*Phaeomoniella* Crous & W. Gams (2)  
*Pseudophaeomoniella* Nigro, Antelmi & Crous (2)  
*Xenocylindrosporium* Crous & Verkley (1)

***Pyrenulales*** Fink ex D. Hawksw. & O.E. Erikss.

***Pyrenulaceae*** Rabenh.

*Anthracotheceium* Hampe ex A. Massal. (5)  
*Blastodesmia* A. Massal. (1)  
*Clypeopyrenis* Aptroot (2)  
*Distopyrenis* Aptroot (8)  
*Granulopyrenis* Aptroot (6)  
*Lithothelium* Müll. Arg. (28)  
*Mazaediotheceium* Aptroot (4)  
*Pyrenographa* Aptroot (1)  
*Pyrenowilmsia* R.C. Harris & Aptroot (1)  
*Pyrenula* Ach. (= *Heufleridium* Müll. Arg.; = *Stromatothelium* Trevis.) (ca. 225)  
*Pyrgillus* Nyl. (8)  
*Sulcopyrenula* H. Harada (5)

***Pyrenulales*** genera *incertae sedis*

*Rhaphidicyrtis* Vain. (1)  
*Xenus* Kohlm. & Volkm.-Kohlm. (1)

***Verrucariales*** Mattick ex D. Hawksw. & O.E. Erikss.

***Adelococcaceae*** Triebel

*Adelococcus* Theiss. & Syd. (4)  
*Pseudopyrenidium* Nav.-Ros., Zhurb. & Cl. Roux (1)  
*Sagediopsis* Sacc. ex Vain. (10)

***Sarcopyreniaceae*** Nav.-Ros. & Cl. Roux

*Sarcopyrenia* Nyl. (11)

***Verrucariaceae*** Zenker

*Agonimia* Zahlbr. (ca. 20)  
*Anthracoarpon* Breuss (1)  
*Atla* S. Savić & Tibell (10)  
*Awasthiella* Kr.P. Singh (1)  
*Bagliettoa* A. Massal. (17)  
*Bellemerella* Nav.-Ros. & Cl. Roux (4)  
*Catapyrenium* Flot. (6)  
*Clauzadella* Nav.-Ros. & Cl. Roux (1)  
*Clavascidium* Breuss (9)  
*Dermatocarpon* Eschw. (20)  
*Endocarpon* Hedw. (ca. 75)  
*Flakea* O.E. Erikss. (1)  
*Glomerilla* Norman (1)  
*Haleomyces* D. Hawksw. & Essl. (1)  
*Halospora* (Zschacke) Tomas. & Cif. (4)

*Henrica* de Lesd. (4)  
*Heterocarpon* Müll. Arg. (1)  
*Heteroplacidium* Breuss (12)  
*Hydropunctaria* C. Keller, Gueidan & Thüs (8)  
*Involucropyrenium* Breuss (9)  
*Mastodia* Hook.f. & Harv. (= *Turgidosculum* Kohlm. & E. Kohlm.) (5)  
*Moriola* Norman (ca. 15)  
*Neocatapyrenium* H. Harada (5)  
*Normandina* Nyl. (= *Lauderlindsaya* J.C. David & D. Hawksw.) (3)  
*Norrlinia* Theiss. & Syd. (2)  
*Parabagliettoa* Gueidan & Cl. Roux (3)  
*Phaeospora* Hepp ex Stein (14)  
*Phylloblastia* Vain. (12)  
*Placidiopsis* Beltr. (20)  
*Placidium* A. Massal. (28)  
*Placocarpus* Trevis. (5)  
*Placopyrenium* Breuss (22)  
*Placothelium* Müll. Arg. (1)  
*Plurisperma* Sivan. (1)  
*Polyblastia* A. Massal. (ca. 40 + ca. 50 orphaned)  
*Psoroglaena* Müll. Arg. (17)  
*Rhabdopsora* Müll. Arg. (2)  
*Scleropyrenium* H. Harada (2)  
*Servitia* M.S. Christ. & Alstrup (1)  
*Spheconisca* (Norman) Norman (ca. 20)  
*Sporodictyon* A. Massal. (5)  
*Staurothele* Norman (ca. 40)  
*Teloga* Nik. Hoffm. & Hafellner (2)  
*Thelediopsis* Vain. (4)  
*Thelidium* A. Massal. (ca. 50 + ca. 50 orphaned)  
*Trimmathele* Norman ex Zahlbr. (3)  
*Verrucaria* Schrad. (ca. 300)  
*Verrucula* J. Steiner (22)  
*Verruculopsis* Gueidan, Nav.-Ros. & Cl. Roux (ca. 10)  
*Wahlenbergiella* Gueidan & Thüs (3)  
*Willeya* Müll. Arg. (12)

***Verrucariales* genera incertae sedis**

*Botryolepraria* Canals, Hern.-Mar., Gómez-Bolea & Llimona (2)  
*Gemmaspora* D. Hawksw. & Halici (1)  
*Kalbiana* Henssen (1)  
*Merismatium* Zopf (10)

***Chaetothyriomycetidae* family incertae sedis**

***Rhynchostomataceae* Winka & O.E. Erikss.**

*Rhynchomeliola* Speg. (3)  
*Rhynchostoma* P. Karst. (23)

***Coryneliomycetidae* A.R. Wood, Damm, J.Z. Groenew., Cheew. & Crous**

***Coryneliales* Seaver & Chardon**

***Coryneliaceae* Sacc. ex Berl. & Voglino**

*Caliciopsis* Peck (36)

*Corynelia* Ach. (16)  
*Coryneliopsis* Butin (2)  
*Coryneliospora* Fitzp. (2)  
*Fitzpatrickella* Benny, Samuelson & Kimbr. (1)  
*Lagenulopsis* Fitzp. (1)  
*Tripospora* Sacc. ex Berl. & Vogl. (5)

**Eremascaceae** Engl. & E. Gilg  
*Eremascus* Eidam (2)

**Eurotiomycetidae** Geiser & Lutzoni  
**Arachnomycetales** Gibas, Sigler & Currah  
**Arachnomycetaceae** Gibas, Sigler & Currah  
*Arachnomyces* Masee & E.S. Salmon (10)  
*Onychocola* Sigler (4)

**Eurotiales** G.W. Martin ex Benny & Kimbr.  
**Aspergillaceae** Link (= *Monascaceae* J. Schröt.)  
*Aspergillago* Samson, Houbraken & Frisvad (1)  
*Aspergillus* P. Micheli ex Haller (428)  
*Dichlaena* Durieu & Mont. (4)  
*Hamigera* Stolk & Samson (9)  
*Leiothecium* Samson & Mouch. (2)  
*Monascus* Tiegh. (38)  
*Penicillago* Guevara-Suarez, Gené & Dania García (1)  
*Penicilliopsis* Solms (15)  
*Penicillium* Link (467)  
*Phialomyces* P.C. Misra & P.H.B. Talbot (5)  
*Pseudopenicillium* Guevara-Suarez, Cano & Guarro (2)  
*Sclerocleista* Subram. (2)  
*Sclerocleista* Subram. (2)  
*Xerochrysum* Pitt (2)  
*Xeromyces* Fraser (1)

**Elaphomycetaceae** Tul. ex Paol.  
*Elaphomyces* Nees (101)  
*Pseudotulostoma* O.K. Miller & T. Henkel (2)

**Thermoascaceae** Apinis  
*Paecilomyces* Bainier (10)  
*Thermoascus* Miehe (5)

**Trichocomaceae** E. Fisch.  
*Chaetotheca* Zukal (2)  
*Dendrosphaera* Pat. (1)  
*Rasamsonia* Houbraken & Frisvad (11)  
*Sagenomella* W. Gams (8)  
*Talaromyces* C.R. Benj. (149)  
*Thermomyces* Tsikl. (6)  
*Trichocoma* Jungh. (2)

**Onygenales** Cif. ex Benny & Kimbr.

**Ajellomycetaceae** Unter., J.A. Scott & Sigler

- Blastomyces* Gilchrist & W.R. Stokes (=Ajellomyces McDonough & A.L. Lewis; *Emmonsia* Cif. & Montemart.) (9)
- Emmonsiiopsis* Y. Marín, Stchigel, Guarro & Cano (2)
- Emergomyces* Dukik, Sigler & de Hoog (5)\*
- Histoplasma* Darling (4 epithets in Index Fungorum 2020)
- Lacazia* Taborda, V.A. Taborda & McGinnis (1)
- Paracoccidioides* F.P. Almeida (6)

**Arthrodermataceae** Currah

- Arthroderma* Curr. & Berk. (32)
- Ctenomyces* Eidam (7)
- Epidermophyton* Sabour. (1)
- Guarromyces* Y Gräser & de Hoog (1)
- Lophophyton* Matr. & Dassonv. (1)
- Microsporum* Gruby (3)
- Nannizzia* Stockdale (9)
- Paraphyton* Y Gräser, Dukik & de Hoog (3)
- Shanorella* R.K. Benj. (1)
- Trichophyton* Malmsten (16)

**Ascosphaeraceae** L.S. Olive & Spiltoir

- Arrhenosphaera* Stejskal (1)
- Ascosphaera* L.S. Olive & Spiltoir (27)
- Bettsia* Skou (2)

**Gymnoascaceae** Baran.

- Aciascus* Doweld (1)
- Amauroscopsis* Guarro, Gené & De Vroey (1)
- Arachniotus* J. Schröt. (21)
- Gymnascella* Peck (9)
- Gymnoascoideus* G.F. Orr, K. Roy & G.R. Ghosh (1)
- Gymnoascus* Baran. (=Narasimhella Thirum. & P.N. Mathur) (26)
- Kraurogymnocarpa* Udagawa & Uchiyama (1)
- Mallochia* Arx & Samson (4)
- Oncocladium* Wallr. (1)
- Orromyces* Sur & G.R. Ghosh (1)

**Nannizziopsidaceae** Guarro, Stchigel, Deanna A. Sutton & Cano

- Nannizziopsis* Currah (16)

**Onygenaceae** Berk.

- Amauroascus* J. Schröt. (ca. 15)
- Aphanoascus* Zúkal (18)
- Apinisia* La Touche (3)
- Arachnotheca* Arx (1)
- Ascocalvatia* Malloch & Cain (1)
- Auxarthron* G.F. Orr & Kuehn (13)
- Auxarthronopsis* Rah. Sharma, Y. Gräser & S.K. Singh (2)
- Bifidocarpus* Cano, Guarro & R.F. Castañeda (2)
- Byssoonygena* Guarro, Punsola & Cano (1)
- Castanedomyces* Cano, L.B. Pitarch & Guarro (1)

*Chlamydosauromyces* Sigler, Hambl. & Paré (1)  
*Chrysosporium* Corda (66)  
*Coccidioides* G.W. Stiles (6)  
*Kuehniella* G.F. Orr (2)  
*Leucothecium* Arx & Samson (3)  
*Malbranchea* Sacc. (23)  
*Myotisia* Kubátová, M. Kolařík & Hubka (1)  
*Myriodontium* Samson & Polon. (1)  
*Neoarachnotheca* Ulfig, Cano & Guarro (1)  
*Neogymnomyces* G.F. Orr (2)  
*Onygena* Pers. (10)  
*Ophidiomyces* Sigler, Hambl. & Paré (1)  
*Paranannizziopsis* Sigler (4)  
*Pectinotrichum* Varsavsky & G.F. Orr (2)  
*Polytolypa* J.A. Scott & Malloch (1)  
*Pseudoamauroascus* Cano, M. Solé & Guarro (1)  
*Renispora* Sigler & J.W. Carmich. (2)  
*Sporendonema* Desm. (2)  
*Testudomyces* Cano, M. Solé & Guarro (1)  
*Uncinocarpus* Sigler & G.F. Orr (2)  
*Xanthothecium* Arx & Samson (1)

***Spiromastigaceae*** Guarro, Cano & Stchigel

*Pseudospiromastix* Guarro, Stchigel & Cano (1)  
*Sigleria* Hirooka, Tanney & Seifert (2)  
*Spiromastigoides* Doweld (8)  
*Spiromastix* Kuehn & G.F. Orr (5)

***Onygenales* genera incertae sedis**

*Arthrospis* Sigler, M.T. Dunn & J.W. Carmich. (4)  
*Ovadendron* Sigler & J.W. Carmich. (1)\*  
*Sphaerosporium* Schwein. *sensu lato* (2)\*

***Eurotiomycetidae* genera incertae sedis**

*Azureothecium* Matsush. (1)  
*Calyptrozyma* Boekhout & Spaay (1)  
*Pisomyxa* Corda (1)  
*Samarospora* Rostr. (1)  
*Veronaia* Benedek (2)

***Mycocaliciomycetidae*** Tibell

***Mycocaliciales*** Tibell & Wedin

***Mycocaliciaceae*** A.F.W. Schmidt (= *Sphinctrinaceae* M. Choisy)

*Brunneocarpos* Giraldo & Crous (1)  
*Chaenothecopsis* Vain. (ca. 40)  
*Mycocalicium* Vain. ex Reinke (12)  
*Phaeocalicium* A.F.W. Schmidt (11)  
*Pyrgidium* Nyl. (3)  
*Sphinctrina* Fr. (ca. 9)  
*Stenocybe* (Nyl.) Körb. (14)

***Sclerococomycetidae*** Réblová, Unter. & W. Gams

**Sclerococcales** Réblová, Unter. & W. Gams

**Dactylosporaceae** Bellem. & Hafellner (= *Sclerococcaceae* Réblová, Unter. & W. Gams)

- Cylindroconidiis* H. Zhang & X.D. Yu (1)
- Fusichalara* S. Hughes & Nag Raj (5)\*
- Longimultiseptata* H. Zhang & W. Dong (2)
- Rhopalophora* Réblová, Unter. & W. Gams (1)
- Sclerococcum* Fr. (= *Dactylospora* Körb.) (ca. 80)\*

**Eurotiomycetes** genus *incertae sedis*

- Neocladophialophora* Crous & R.K. Schumach. (1)

**Geoglossomycetes** Zheng Wang, C.L. Schoch & Spatafora

**Geoglossales** Zheng Wang, C.L. Schoch & Spatafora

**Geoglossaceae** Corda

- Geoglossum* Pers. (40)
- Glutinoglossum* Hustad, A.N. Mill., Dentinger & P.F. Cannon (13)
- Hemileucoglossum* Arauzo (5)
- Leucoglossum* S. Imai (2)
- Maasoglossum* K.S. Thind & R. Sharma (2)
- Sabuloglossum* Hustad, A.N. Mill., Dentinger & P.F. Cannon (1)
- Trichoglossum* Boud. (19)

**Geoglossomycetes** genera *incertae sedis*

- Nothomitra* Maas Geest. (3)\*
- Sarcoleotia* S. Ito & S. Imai (3)\*

**Laboulbeniomycetes** Engler

**Herpomycetales** Haelew. & Pfister\*

**Herpomycetaceae** I.I. Tav.

- Herpomyces* Thaxt. (26)

**Laboulbeniales** Lindau

**Ceratomycetaceae** S. Colla

- Autoicomycetes* Thaxt. (28)
- Ceratomyces* Thaxt. (32)
- Drepanomyces* Thaxt. (1)
- Eusynaptomyces* Thaxt. (5)
- Helodiomyces* F. Picard (1)
- Phurmomyces* Thaxt. (1)
- Plectomyces* Thaxt. (1)
- Rhynchophoromyces* Thaxt. (8)
- Synaptomyces* Thaxt. (1)
- Tettigomyces* Thaxt. (16)
- Thaumasiomyces* Thaxt. (3)
- Thripomyces* Speg. (2)

**Euceratomycetaceae** I.I. Tav.

- Cochliomyces* Speg. (2)
- Colonomyces* R.K. Benj. (2)
- Euceratomyces* Thaxt. (1)
- Euzodiomyces* Thaxt. (2)
- Pseudoecteinomyces* W. Rossi (1)



***Laboulbeniaceae*** G. Winter

- Acallomyces* Thaxt. (3)  
*Acompsomyces* Thaxt. (6)  
*Acrogynomyces* Thaxt. (6)  
*Amorphomyces* Thaxt. (15)  
*Amphimyces* Thaxt. (1)  
*Apatelomyces* Thaxt. (1)  
*Apatomyces* Thaxt. (1)  
*Aphanandromyces* W. Rossi (1)  
*Aporomyces* Thaxt. (11)  
*Arthrorhynchus* Kolen. (3)  
*Asaphomyces* Thaxt. (2)  
*Autophagomyces* Thaxt. (17)  
*Benjaminiomyces* I.I. Tav. (4)  
*Blasticomyces* I.I. Tav. (3)  
*Bordea* Maire (15)  
*Botryandromyces* I.I. Tav. & T. Majewski (2)  
*Camptomyces* Thaxt. (8)  
*Cantharomyces* Thaxt. (29)  
*Capillistichus* Santam. (1)  
*Carpophoromyces* Thaxt. (1)  
*Cesariella* W. Rossi & Santam. (1)  
*Chaetarthriomyces* Thaxt. (3)  
*Chaetomyces* Thaxt. (2)  
*Chitonomyces* Peyr. (ca. 98)  
*Clematomyces* Thaxt. (5)  
*Clonophoromyces* Thaxt. (2)  
*Columnomyces* R.K. Benj. (1)  
*Compsomyces* Thaxt. (7)  
*Coreomyces* Thaxt. (22)  
*Corethromyces* Thaxt. (ca. 85)  
*Corylophomyces* R.K. Benj. (5)  
*Cryptandromyces* Thaxt. (= *Peyerimhoffiella* Maire) (19)  
*Cucujomyces* Speng. (20)  
*Cupulomyces* R.K. Benj. (= *Balazucia* R.K. Benj.) (1)  
*Dermapteromyces* Thaxt. (1)  
*Diandromyces* Thaxt. (2)  
*Diaphoromyces* Thaxt. (5)  
*Diclonomyces* Thaxt. (3)  
*Dimeromyces* Thaxt. (118)  
*Dimorphomyces* Thaxt. (32)  
*Dioicomycetes* Thaxt. (32)  
*Diphymyces* I.I. Tav. (25)\*  
*Diplomyces* Thaxt. (3)  
*Diplopodomycetes* W. Rossi & Balazuc (6)  
*Dipodomycetes* Thaxt. (2)  
*Distolomyces* Thaxt. (3)  
*Dixomyces* I.I. Tav. (14)  
*Ecteinomyces* Thaxt. (1)  
*Enarthromyces* Thaxt. (1)  
*Eucantharomyces* Thaxt. (26)  
*Euhaplomyces* Thaxt. (1)

*Eumonoicomyces* Thaxt. (2)  
*Euphoriomyces* Thaxt. (15)  
*Filariomyces* Shanor (1)  
*Gloeandromyces* Thaxt. (4)  
*Haplomyces* Thaxt. (3)  
*Hesperomyces* Thaxt. (8)\*  
*Histeridomyces* Thaxt. (6)  
*Homaromyces* R.K. Benj. (1)  
*Hydraeomyces* Thaxt. (1)  
*Hydrophilomyces* Thaxt. (12)  
*Idiomyces* Thaxt. (1)  
*Ilyomyces* F. Picard (2)  
*Ilytheomyces* Thaxt. (15)  
*Kainomyces* Thaxt. (3)  
*Kleidiomyces* Thaxt. (4)  
*Kruphaiomyces* Thaxt. (1)  
*Kyphomyces* I.I. Tav. (14)  
*Laboulbenia* Mont. & C.P. Robin (= *Scalenomyces* I.I. Tav.) (ca. 633)\*  
*Limnaiomyces* Thaxt. (3)  
*Majewskia* Y.B. Lee & Sugiyama (1)  
*Meionomyces* Thaxt. (6)  
*Microsomyces* Thaxt. (2)  
*Mimeomyces* Thaxt. (16)  
*Misgomyces* Thaxt. (4)  
*Monandromyces* R.K. Benj. (11)  
*Monoicomyces* Thaxt. (47)  
*Nanomyces* Thaxt. (48)  
*Neohaplomyces* R.K. Benj. (3)  
*Nycteromyces* Thaxt. (2)  
*Opilionomyces* Santam., Enghoff, Gruber & Reboleira (1)\*  
*Ormomyces* I.I. Tav. (1)  
*Osoriomyces* Terada (1)  
*Parvomyces* Santam. (1)  
*Peyritschiella* Thaxt. (47)  
*Phalacrichomyces* R.K. Benj. (2)  
*Phaulomyces* Thaxt. (14)  
*Picardella* I.I. Tav. (2)  
*Polyandromyces* Thaxt. (1)  
*Polyascomyces* Thaxt. (1)  
*Porophoromyces* Thaxt. (1)  
*Prolixandromyces* R.K. Benj. (20)  
*Pselaphidomyces* Speg. (1)  
*Rhachomyces* Thaxt. (ca. 75)  
*Rhipidiomyces* Thaxt. (1)  
*Rhizomyces* Thaxt. (10)  
*Rhizopodomycetes* Thaxt. (7)  
*Rickia* Cavara (144)  
*Rodaucea* W. Rossi & Santam. (2)  
*Rossiomyces* R.K. Benj. (1)  
*Sandersoniomyces* R.K. Benj. (1)  
*Scaphidiomyces* Thaxt. (5)  
*Scelophoromyces* Thaxt. (1)

*Scepastocarpus* Santam. (1)  
*Siemaszkoa* I.I. Tav. & Maj. (7)  
*Smeringomyces* Thaxt. (4)  
*Sphaleromyces* Thaxt. (3)  
*Stemmatomyces* Thaxt. (2)  
*Stichomyces* Thaxt. (7)  
*Stigmatomyces* H. Karst. (= *Fanniomyces* T. Majewski) (150)  
*Sugiyamaemyces* I.I. Tav. & Balazuc (1)  
*Symplectromyces* Thaxt. (3)  
*Sympodomycetes* R.K. Benj. (1)  
*Synandromyces* Thaxt. (9)  
*Tavaresiella* T. Majewski (4)  
*Teratomyces* Thaxt. (11)  
*Tetrandromyces* Thaxt. (6)  
*Thaxterimyces* Santam., Reboleira & Enghoff (1)  
*Trenomycetes* Chatton & F. Picard (11)  
*Triainomyces* W. Rossi & A. Weir (1)  
*Triceromyces* T. Majewski (5)  
*Trochoideomyces* Thaxt. (1)  
*Troglomyces* S. Colla (8)  
*Zeugandromyces* Thaxt. (4)  
*Zodiomyces* Thaxt. (4)

***Laboulbeniales*** genera *incertae sedis*

*Cainomyces* Thaxt. (1)  
*Coreomycetopsis* Thaxt. (1)  
*Gliocephalis* Matr. (2)

***Pyxidiophorales*** P.F. Cannon

***Pyxidiophoraceae*** Arnold

*Mycorhynchidium* Malloch & Cain (1)  
*Pleurocatena* G. Arnaud ex Aramb., Gamundí, W. Gams & G.R.W. Arnold (3)  
*Pyxidiophora* Bref. & Tavel (17)

***Laboulbeniomycetes*** genus *incertae sedis*

*Laboulbeniopsis* Thaxt. (1)

***Lecanoromycetes*** O.E. Erikss. & Winka

***Acarosporomycetidae*** V. Reeb, Lutzoni & Cl. Roux

***Acarosporales*** V. Reeb, Lutzoni & Cl. Roux

***Acarosporaceae*** Zahlbr.

*Acarospora* A. Massal. (200)  
*Caeruleum* Arcadia (2)  
*Glypholecia* Nyl. (1)  
*Lithoglypha* Brusse (1)  
*Myriospora* Nägeli ex Uloth (9)  
*Pleopsidium* Körb. (4)  
*Polysporina* Vězda (10)  
*Sarcogyne* Flot. (28)  
*Thelocarpella* Nav.-Ros. & Cl. Roux (1)  
*Timdalia* Hafellner (1)  
*Trimmatothelopsis* Zschacke (1)

**Eigleraceae** Hafellner

*Eiglera* Hafellner (2)

**Lecanoromycetidae** P.M. Kirk, P.F. Cannon, J.C. David & Stalpers ex Miądl., Lutzoni & Lumbsch

**Caliciales** Bessey

**Caliciaceae** Chevall.

*Acolium* (Ach.) Gray (5)  
*Acroscyphus* Lév. (1)  
*Allocalicium* M. Prieto & Wedin (1)  
*Amandinea* M. Choisy ex Scheid. & M. Mayrhofer (35)  
*Australiaena* Matzer, H. Mayrhofer & Elix (1)  
*Baculifera* Marbach (14)  
*Buellia* De Not. (= *Dirinastrum* Müll. Arg.) (300)  
*Caliciella* Vain. (1)  
*Calicium* Pers. (= *Cyphelium* Ach.) (ca. 30)  
*Chrimofulvea* Marbach (4)  
*Ciposia* Marbach (1)  
*Cratiria* Marbach (ca. 20)  
*Culbersonia* Essl. (1)\*  
*Dermatiscum* Nyl. (3)  
*Dermiscellum* Hafellner, H. Mayrhofer & Poelt (1)  
*Dimelaena* Norman (10)  
*Diploicia* A. Massal. (ca. 12)  
*Diplotomma* Flot. (ca. 30)  
*Dirinaria* (Tuck.) Clem. (ca. 35)  
*Endohyalina* Marbach (10)  
*Fluctua* Marbach (1)  
*Gassicurtia* Fée (30)  
*Hypoflavia* Marbach (3)  
*Monerolechia* Trevis. (4)  
*Orcularia* (Malme) Kalb & Giralt (4)  
*Pseudothelomma* M. Prieto & Wedin (2)  
*Pyxine* Fr. (ca. 75)  
*Redonia* C.W. Dodge (2)  
*Santessonina* Hale & Vobis (10)  
*Sculptolumina* Marbach (4)  
*Sphinctrinopsis* Woron. (1)  
*Stigmatochroma* Marbach (9)  
*Tetramelas* Norman (16)  
*Texosporium* Nádv. ex Tibell & Hofsten (1)  
*Thelomma* A. Massal. (5)  
*Tholurna* Norman (1)

**Physciaceae** Zahlbr.

*Anaptychia* Körb. (ca. 15)  
*Coscinocladium* Kunze (2)  
*Heterodermia* Trevis. (ca. 90)  
*Hyperphyscia* Müll. Arg. (9)  
*Kashiwadia* S.Y. Kondr. (1)  
*Leucodermia* Kalb (10)  
*Mischoblastia* A. Massal. (3)

*Mobergia* H. Mayrhofer & Sheard (1)  
*Oxnerella* S.Y. Kondr., Lökös & Hur (1)  
*Phaeophyscia* Mob. (66)  
*Phaeorrhiza* H. Mayrhofer & Poelt (2)  
*Physcia* (Schreb.) Michaux (ca. 80)  
*Physciella* Essl. (4)  
*Physconia* Poelt (ca. 25)  
*Polyblastidium* Kalb (18)  
*Rinodina* (Ach.) Gray (ca. 300)  
*Rinodinella* H. Mayrhofer & Poelt (6)  
*Tornabea* Oesth. (1)

***Lecanorales*** Nannf.

***Bruceomycetaceae*** Rikkinen & A.R. Schmidt

*Bruceomyces* Rikkinen (4)  
*Resinogalea* Rikkinen & A.R. Schmidt (1)\*

***Catillariaceae*** Hafellner

*Austrolecia* Hertel (1)  
*Catillaria* A. Massal. (ca. 30 + several orphaned names)  
*Placolecis* Trevis. (1)  
*Solenopsora* A. Massal. (11)  
*Xanthopsorella* Kalb & Hafellner (1)

***Cladoniaceae*** Zenker (= *Squamarinaceae* Hafellner, = *Stereocaulaceae* Chevall.)\*

*Calathaspis* I.M. Lamb & W.A. Weber (1)  
*Carassea* S. Stenroos (1)  
*Cetradonia* J.C. Wei & Ahti (1)  
*Cladia* Nyl. (ca. 27)  
*Cladonia* Hill ex P. Browne (ca. 500)  
*Gymnoderma* Nyl. (3)  
*Herteliana* P. James (3)  
*Hertelidea* Printzen & Kantvilas (6)  
*Heteromyces* Müll. Arg. (1)  
*Lepraria* Ach. (76)  
*Metus* D.J. Galloway & P. James (3)  
*Notocladonia* S. Hammer (2)  
*Paralecia* Brackel, Greiner, Peršoh & Rambold (1)  
*Pilophorus* Th. Fr. (17)  
*Pulchrocladia* S. Stenroos, Pino-Bodas, Lumbsch & Ahti (3)  
*Pycnothelia* Duf. (2)  
*Sphaerophoropsis* Vain. (2)  
*Squamarina* Poelt (25)  
*Squamella* S. Hammer (1)  
*Stereocaulon* Hoffm. (ca. 140)  
*Thysanothecium* Mont. & Berk. (3)  
*Xyleborus* R.C. Harris & Ladd (1)

***Gypsoplacaceae*** Timdal

*Gypsoplaca* Timdal (5)

***Haematommataceae*** Hafellner

*Haematomma* A. Massal. (ca. 50)

***Lecanoraceae*** Körb. (= *Carbonicolaceae* Bendiksby & Timdal)

- Adelolecia* Hertel & Hafellner (4)\*
- Ameliella* Fryday & Coppins (2)
- Bryodina* Hafellner (2)
- Bryonora* Poelt (11)
- Carbonicola* Bendiksby & Timdal (3)
- Cladidium* Hafellner (2)
- Claurouxia* D. Hawksw. (1)
- Clauzadeana* Cl. Roux (1)
- Edrudia* W.P. Jordan (1)
- Frutidella* Kalb (3)\*
- Huea* C.W. Dodge & G.E. Baker (= *Carbonea* (Hertel) Hertel) (20)
- Japewia* Tønsberg (3)\*
- Japewiella* Printzen (7)
- Lecanora* Ach. (ca. 550)
- Lecidella* Körb. (80)
- Maronina* Hafellner & R.W. Rogers (6)
- Maronora* Kalb & Aptroot (1)
- Miriquidica* Hertel & Rambold (30)
- Myriolecis* Clements (43)
- Palicella* Rodr. Flakus & Printzen (4)
- Protoparmeliopsis* Choisy (= *Sedelnikovaea* S.Y. Kondr., M.H. Jeong & Hur) (ca. 20)
- Psorinia* Gotth. Schneid. (2)
- Punctonora* Aptroot (2)
- Pyrrhospora* Körb. (7)
- Rhizoplaca* Zopf (11)
- Sagema* Poelt & Grube (1)
- Traponora* Aptroot (8)
- Vainionora* Kalb (9)

***Malmideaceae*** Kalb, Rivas Plata & Lumbsch

- Cheiromycina* B. Sutton (4)
- Crustospathula* Aptroot (4)\*
- Kalbionora* Sodamuk, S.D. Leav. & Lumbsch (1)
- Malmidea* Kalb, Rivas Plata & Lumbsch (52)
- Savoronala* Ertz, Eb. Fisch., Killmann, Razafindr. & Sérus (1)
- Sprucidea* M.Cáceres, Aptroot & Lücking (4)
- Zhurbenkoa* Flakus, Etayo, Pérez-Ortega & Rodr. Flakus (3)

***Megalariaceae*** Hafellner

- Catillochroma* Kalb (2)
- Megalaria* Hafellner (ca. 30)\*

***Parmeliaceae*** Zenker

- Alectoria* Ach. (= *Gowardia* Halonen, Myllys, Velmala & Hyvärinen) (9)
- Allantoparmelia* (Vain.) Essl. (3)
- Anzia* Stizenb. (34)
- Arctoparmelia* Hale (5)
- Asahinea* W.L. Culb. & C.F. Culb. (2)
- Austromelanelixia* Divakar, A. Crespo & Lumbsch (5)

*Austroparmelina* A. Crespo, Divakar & Elix (13)  
*Brodoa* Goward (3)  
*Bryocaulon* Kärnefelt (4)  
*Bryoria* Brodo & D. Hawksw. (ca. 52)  
*Bulbothrix* Hale (62)  
*Canoparmelia* Elix & Hale (35)  
*Cetraria* Ach. (= *Allocetraria* Kurok. & M.J. Lai, = *Cetrariella* Kärnefelt & Thell, = *Usnocetraria* M.J. Lai & J.C. Wei, = *Vulpicida* Mattson & M.J. Lai) (35)  
*Cetrelia* W.L. Culb. & C.F. Culb. (18)  
*Coelopogon* Brusse & Kärnefelt (2)  
*Cornicularia* (Schreb.) Ach. (1)  
*Dactylina* Nyl. (2)  
*Davidgallowaya* Aptroot (1)  
*Dolichousnea* (Y. Ohmura) Articus (3)  
*Emodomelanelia* Divakar & A. Crespo (1)  
*Esslingeriana* Hale & M.J. Lai (1)  
*Eumitria* Stirt. (13)  
*Evernia* Ach. (10)  
*Everniopsis* Nyl. (1)  
*Flavoparmelia* Hale (32)  
*Flavopunctelia* Hale (5)  
*Himantormia* I.M. Lamb (2)  
*Hypogymnia* (Nyl.) Nyl. (90)  
*Hypotrachyna* (Vain.) Hale (262)  
*Imshaugia* F.C. Mey. (1)  
*Letharia* (Th. Fr.) Zahlbr. (9)  
*Lethariella* (Motyka) Krog (11)  
*Masonhalea* Kärnefelt (2)\*  
*Melanelia* Essl. (2)  
*Melanelixia* O. Blanco, A. Crespo, Divakar, Essl., D. Hawksw. & Lumbsch (11)  
*Melanohalea* O. Blanco, A. Crespo, Divakar, Essl., D. Hawksw. & Lumbsch (22)  
*Menegazzia* A. Massal. (70)  
*Montanelia* Divakar, A. Crespo, Wedin & Essl. (5)  
*Myelochroa* (Asahina) Elix & Hale (30)  
*Neoprotoparmelia* Garima Singh, Lumbsch & I. Schmitt (14)  
*Nephromopsis* Müll. Arg. (= *Ahtiana* Goward; = *Arctocetraria* Kärnefelt & Thell; = *Cetrariopsis* Kurok.; = *Flavocetraria* Kärnefelt & Thell; = *Flavocetrariella* D.D. Awasthi; = *Kaernefeltia* Thell & Goward; = *Tuckermanella* Essl.; = *Tuckermannopsis* Gyeln.) (62)  
*Nesolechia* A. Massal. (ca. 2)  
*Nipponoparmelia* (Kurok.) K.H. Moon, Y. Ohmura & Kashiw. (4)  
*Nodobryoria* Common & Brodo (3)  
*Notoparmelia* A. Crespo, Ferencová & Divakar (16)  
*Omphalodium* Meyen & Flot. (4)  
*Omphalora* T.H. Nash & Hafellner (1)  
*Oropogon* Th. Fr. (42)  
*Pannoparmelia* (Müll. Arg.) Darb. (5)  
*Parmelia* Ach (43)  
*Parmelina* Hale (10)  
*Parmelinella* Elix & Hale (8)  
*Parmeliopsis* (Nyl.) Nyl. (3)  
*Parmotrema* A. Massal. (= *Crespoa* (D. Hawksw.) Lendemer & B.P. Hodk.) (255)  
*Parmotremopsis* Elix & Hale (2)

*Phacopsis* Tul. (10)  
*Platismatia* W.L. Culb. & C.F. Culb. (11)  
*Pleurosticta* Petr. (2)  
*Protoparmelia* M. Choisy (11)  
*Protousnea* (Motyka) Krog (8)  
*Pseudephebe* M. Choisy (2)  
*Pseudevernia* Zopf (4)  
*Pseudoparmelia* Lynge (15)  
*Psiloparmelia* Hale (13)  
*Punctelia* Krog (48)  
*Relicina* (Hale & Kurok.) Hale (59)  
*Remototrachyna* Divakar & A. Crespo (19)  
*Raesaenenia* D. Hawksw. (1)  
*Sulcaria* Bystr. (5)  
*Usnea* Dill. ex Adans. (355)  
*Xanthoparmelia* (Vain.) Hale (822)

***Pilocarpaceae*** Zahlbr.

*Aquacidia* Aptroot (3)\*  
*Badimiella* Malcolm & Vězda (1)  
*Baflavia* Lücking (1)  
*Bapalmuia* Sérus. (22)  
*Barubria* Vězda (2)  
*Brasilicia* Lücking, Kalb & Serus. (6)  
*Bryogomphus* Lücking, W.R. Buck, Sérus. & L.I. Ferraro (1)  
*Byssolecania* Vain. (7)  
*Byssoloma* Trevis. (60)  
*Calopadia* Vězda (27)  
*Calopadiopsis* Lücking & R. Sant. (2)  
*Eugeniella* Lücking, Sérus. & Kalb (11)  
*Fellhanera* Vězda (ca. 100)  
*Fellhaneropsis* Sérus. & Coppins (9)  
*Kantvilasia* P.M. McCarthy, Elix & Sérus. (1)  
*Lasioloma* R. Sant. (9)  
*Leimonis* R.C. Harris (2)  
*Loflammia* Vězda (5)  
*Loflammiopsis* Lücking & Kalb (1)  
*Logilvia* Vězda (1)  
*Micarea* Fr. (102)  
*Podotara* Malcolm & Vězda (1)  
*Pseudocalopadia* Lücking (1)  
*Roccellinastrum* Follmann (7)  
*Schadonia* Körb. (4)\*  
*Septotrapelia* Aptroot & Chaves (4)  
*Sporopodiopsis* Sérus. (2)  
*Sporopodium* Mont. (24)  
*Szczawinskia* A. Funk (5)  
*Tapellaria* Müll. Arg. (23)  
*Tapellariopsis* Lücking (1)

***Psilolechiaceae*** S. Stenroos, Miądl. & Lutzoni

*Psilolechia* A. Massal. (4)



**Psoraceae** Zahlbr.

- Brianaria* S. Ekman & M. Svensson (4)
- Glyphopeltis* Brusse (1)
- Protoblastenia* (Zahlbr.) J. Steiner (30)
- Protomicarea* Hafellner (2)
- Psora* Hoffm. (35)
- Psorula* Gotth. Schneid. (1)

**Ramalinaceae** C. Agardh\*

- Auriculora* Kalb (1)
- Bacidia* De Not. (= *Bacidiopsora* Kalb) (230)\*
- Bacidina* Vězda (12)
- Badimia* Vězda (20)
- Bellicidia* Kistenich, Timdal, Bendiksby & Ekman (1)\*
- Biatora* Fr. (= *Myrionora* R.C. Harris; = *Ivanpisutia* S.Y. Kondr., Lökös & Hur) (42)\*
- Bibbya* J.H. Willis (10)\*
- Bilimbia* De Not. (= *Myxobilimbia* Hafellner) (6)
- Cenozosia* A. Massal. (1)
- Cliostomum* Fr. (25)
- Echidnocymbium* Brusse (1)
- Eschatogonia* Trevis. (7)
- Heppsora* D.D. Awasthi & K. Singh (1)
- Jarmania* Kantvilas (2)
- Kiliasia* Hafellner (9)\*
- Krogia* Timdal (7)
- Lecania* A. Massal. (50)
- Lueckingia* Aptroot & Umana (1)
- Mycobilimbia* Rehm (5)\*
- Myelorrhiza* Verdon & Elix (2)\*
- Niebla* Rundel & Bowler (23)
- Parallopsora* Kistenich, Timdal & Bendiksby (3)\*
- Phyllopsora* Müll. Arg. (= *Crocynia* (Ach.) A. Massal.) (75)\*
- Physcidia* Tuck. (10)
- Ramalina* Ach. (230)
- Rolfidium* Moberg (3)
- Scutula* Tul. (= *Karsteniomyces* D. Hawksw.; = *Libertiella* Speg. & Roum.) (43)\*
- Sporacestra* A. Massal. (1)\*
- Stirtoniella* D.J. Galloway, Hafellner & Elix (1)
- Thalloidima* A. Massal. (17)\*
- Thamnolecania* (Vain.) Gyeln. (1)
- Tibellia* Vězda & Hafellner (1)
- Toninia* A. Massal. (= *Arthrosporum* A. Massal.) (85)\*
- Toniniopsis* Frey (7)
- Tylothallia* P. James & H. Kiliass (3)\*
- Waynea* Moberg (7)

**Ramboldiaceae** S. Stenroos, Miádl. & Lutzoni

- Ramboldia* Kantvilas & Elix (34)

**Scoliciosporaceae** Hafellner

- Scoliciosporum* A. Massal. (15)

***Sphaerophoraceae* Fr.**

- Austropeltum* Henssen, H. Döring & Kantvilas (1)
- Bunodophoron* A. Massal. (25)
- Calycidium* Stirt. (2)
- Leifidium* Wedin (1)
- Neophyllis* F. Wilson (2)
- Sphaerophorus* Pers. (8)

***Tephromelataceae* Hafellner**

- Calvitimela* Hafellner (11)
- Mycoblastus* Norman (10)
- Tephromela* M. Choisy (ca. 30)
- Violella* T. Sprib. (2)

***Lecanorales* genera incertae sedis**

- Catinaria* Vain. (2)\*
- Compsocladium* I.M. Lamb (2)\*
- Coronoplectrum* Brusse (1)
- Corticiruptor* Wedin & Hafellner (2)
- Lichenosticta* Zopf (5)
- Myochroidea* Printzen, T. Sprib. & Tønsberg (4)\*
- Neopsoromopsis* Gyeln. (1)
- Nimisiostella* Calat., Barreno & O.E. Erikss. (1)
- Psoromella* Gyeln. (1)
- Puttea* S. Stenroos & Huhtinen (4)
- Ramalea* Nyl. (4)
- Tasmidella* Kantvilas, Hafellner & Elix (1)\*
- Umbilithecium* Etayo (1)
- Umushamyces* Etayo (1)

***Lecideales* Vain.**

***Lecideaceae* Chevall.**

- Amygdalaria* Norman (11)
- Bahianora* Kalb (1)
- Bellemerea* Hafellner & Cl. Roux (10)
- Bryobilimbia* Fryday (6)\*
- Catarrhospora* Brusse (2)
- Cecidonia* Triebel & Rambold (2)
- Clauzadea* Hafellner & Bellem. (7)
- Cryptodictyon* A. Massal. (2)
- Eremastrella* Vogel (2)
- Farnoldia* Hertel (6)
- Immersaria* Rambold & Pietschm. (8)
- Koerberiella* Stein (2)
- Labyrintha* Malcolm, Elix & Owe-Larss. (1)
- Lecidea* Ach. (ca. 100)
- Lecidoma* Goth. Schneid. & Hertel (1)
- Melanolecia* Hertel (7)
- Pachyphysis* R.C. Harris & Ladd (1)
- Paraporpidia* Rambold & Pietschm. (3)
- Poeltiaria* Hertel (8)
- Poeltidea* Hertel & Hafellner (3)

*Porpidia* Körb. (51)  
*Porpidinia* Timdal (1)  
*Pseudopannaria* (B. de Lesd.) Zahlbr. (1)  
*Rhizolecia* Hertel (1)  
*Romjularia* Timdal (1)  
*Schizodiscus* Brusse (1)  
*Stenhammarella* Hertel (1)  
*Stephanocyclos* Hertel (1)  
*Xenolecia* Hertel (2)

**Lopadiaceae** Hafellner

*Lopadium* Körb. (10)

**Leprocaulales** Lendemer & B.P. Hodk.

**Leprocaulaceae** Lendemer & B.P. Hodk.

*Halecania* M. Mayrhofer (22)  
*Leprocaulon* Nyl. (ca. 10)  
*Speerschneidera* Trevis. (1)

**Peltigerales** W. Watson

**Coccocarpiaceae** Henssen ex Henssen

*Coccocarpia* Pers. (ca. 50)  
*Peltularia* R. Sant. (4)  
*Spilonema* Bornet (4)

**Collemataceae** Zenker

*Blennothallia* Trevis. (4)  
*Callome* Otálora & Wedin (1)  
*Collema* F.H. Wigg. (ca. 35)  
*Enchylium* (Ach.) Gray (11)  
*Lathagrium* (Ach.) Gray (10)  
*Leptogium* (Ach.) Gray (ca. 110)  
*Pseudoleptogium* Müll. Arg. (1)  
*Rostania* Trevis. (3 + 4 orphaned species)\*  
*Scytinium* (Ach.) Gray (49)

**Koerberiaceae** T. Sprib. & Muggia

*Henssenia* Ertz, R.S. Poulsen & Søchting (4)\*  
*Koerberia* A. Massal. (2)  
*Vestergrenopsis* Gyeln. (2)

**Massalongiaceae** Wedin, P.M. Jørg. & E. Wiklund.

*Leptochidium* M. Choisy (2)  
*Massalongia* Körb. (2 + 6 orphaned species)  
*Polychidium* (Ach.) Gray (1)

**Pannariaceae** Tuck.

*Austrella* P.M. Jørg. (3)  
*Degelia* Arv. & D.J. Galloway (16)  
*Erioderma* Feé (32)  
*Fuscoderma* (D.J. Galloway & P.M. Jørg.) P.M. Jørg. & D.J. Galloway (5)  
*Fuscopannaria* P.M. Jørg. (= *Kroswia* P.M. Jørg.) (58)

*Gibbosporina* Elvebakk, S.G. Hong & P.M. Jørg. (13)  
*Homothecium* A. Massal. (4)  
*Joergensenia* Passo, S. Stenroos & Calvelo (1)  
*Leciophysma* Th. Fr. (2)  
*Leightoniella* Henssen (1)  
*Leioderma* Nyl. (7)  
*Lepidocollema* Vain. (22)  
*Leptogidium* Nyl. (3)  
*Nebularia* P.M. Jørg. (2)  
*Nevesia* P.M.Jørg, L. Lindblom, Wedin & S. Ekman (1)  
*Pannaria* Del. ex Bory (ca. 40)  
*Parmeliella* Müll. Arg. (ca. 40)  
*Pectenaria* P.M. Jørg. (4)  
*Physma* A. Massal. (12)  
*Protopannaria* (Gyeln.) P.M. Jørg. & S. Ekman (7)  
*Psoroma* Michaux (ca. 70)  
*Psoromaria* Nyl. ex Nyl. (= *Degeliella* P.M. Jørg.) (2)  
*Psoromidium* Stirt. (2)  
*Ramalodium* Nyl. (6)  
*Siphulastrum* Müll. Arg. (4)  
*Staurolemma* Körb. (3)  
*Steineropsis* T. Sprib. & Muggia (1)

***Peltigeraceae*** Dumort. (= *Lobariaceae* Chevall.; = *Nephromataceae* Wetm. ex J.C. David & D. Hawksw.)\*

*Crocodia* Link (5)  
*Dendrioscicta* Moncada & Lücking (5)  
*Lobaria* (Schreb.) Hoffm. (ca. 60)  
*Lobariella* Yoshim. (35)  
*Lobarina* Nyl. ex Cromb. (15)  
*Nephroma* Ach. (ca. 36)  
*Parmostictina* Nyl. (15)  
*Peltigera* Willd. (ca. 100)  
*Podostictina* Clem. (5)  
*Pseudocyphellaria* Vain. (ca. 100)  
*Ricasolia* De Not. (15)  
*Solorina* Ach. (ca. 10)  
*Sticta* (Schreb.) Ach. (ca. 200)  
*Yarrumia* D.J. Galloway (2)  
*Yoshimuriella* Moncada & Lücking (8)

***Placynthiaceae*** Å.E. Dahl

*Hertella* Henssen (3)  
*Placynthiopsis* Zahlbr. (1)  
*Placynthium* (Ach.) Gray (ca. 20)

***Vahliellaceae*** Wedin

*Vahliella* P.M. Jørg. (10)

***Peltigerineae*** genus *incertae sedis*

*Erinacellus* T. Sprib., Muggia & Tønsberg (2)

**Rhizocarpales** Miadl. & Lutzoni ex Miadl. & Lutzoni ex Miadl. & Lutzoni

**Rhizocarpaceae** M. Choisy & Hafellner

- Catolechia* Flot. (1)
- Epilichen* Clem. (2)
- Poeltinula* Hafellner (2)
- Rhizocarpon* Ramond ex DC. (225)

**Sporastatiales** Lumbsch & Leavitt\*

**Sporastatiaceae** Bendiksby & Timdal

- Sporastatia* A. Massal. (4)
- Toensbergia* Bendiksby & Timdal (1)

**Teloschistales** D. Hawksw. & O.E. Erikss.

**Brigantiaaceae** Hafellner & Bellem. (= *Letrouitiaceae* Bellem. & Hafellner)\*

- Brigantiaea* Trevis. (26)
- Letrouitia* Hafellner & Bellem. (18)

**Megalosporaceae** Vězda ex Hafellner & Bellem.

- Megaloblastenia* Sipman (2)
- Megalospora* Meyen (36)
- Sipmaniella* Kalb (1)

**Teloschistaceae** Zahlbr.

- Amundsenia* Søchting, Garrido-Ben., Arup & Frödén (2)
- Apatoplaca* Poelt & Hafellner (1)
- Athallia* Arup, Frödén & Søchting (= ?*Coppinsiella* S. Y. Kondr. et al.; = ?*Fominiella* S. Y. Kondr., Upreti & Hur) (17)
- Austroplaca* Søchting, Frödén & Arup (10)
- Blastenia* A. Massal. (11)
- Brownliella* S.Y. Kondr., Kärnefelt, Elix, A. Thell & Hur (4)
- Bryoplaca* Søchting, Frödén & Arup (3)
- Calogaya* Arup, Frödén & Søchting (= *Lazarenkoella* S.Y. Kondr. et al.; = *Seawardiella* S.Y. Kondr. et al.) (19)
- Caloplaca* Th. Fr. (351)
- Catenarina* Søchting, Søgaaard, Arup, Elvebakk & Elix (3)
- Cephalophysis* (Hertel) H. Kiliass (1)
- Cerothallia* Arup, Frödén & Søchting (4)
- Charcotiana* Søchting, Garrido-Ben. & Arup (1)
- Dijigiella* S.Y. Kondr. & L. Lökös (2)
- Dufourea* Ach. (= *Xanthodactylon* P.A. Duvign.) (25)
- Eilifdahlia* S.Y. Kondr., Kärnefelt, Elix, A. Thell & Hur (2)
- Fauriea* S.Y. Kondr., Lökös & Hur (2)
- Filsoniana* S.Y. Kondr., Kärnefelt, Elix, A. Thell & Hur (= *Harusavskia* S.Y. Kondr.; = *Nevilleiella* S.Y. Kondr. & Hur; = *Thelliana* S.Y. Kondr. et al.) (9)
- Flavoplaca* Arup, Søchting & Frödén (28)
- Follmannia* C.W. Dodge (2)
- Franwilsia* S.Y. Kondr., Kärnefelt, Elix, A. Thell & Hur (3)
- Gondwania* Søchting, Frödén & Arup (4)
- Gyalolechia* A. Massal. (= *Hanstrassia* S.Y. Kondr.; = *Laundonia* S. Y. Kondr., L. Lökös & Hur; = *Lazarenkoiopsis* S.Y. Kondr., L. Lökös & Hur; = *Opeltia* S.Y. Kondr. & L. Lökös; = *Oxneriopsis* S.Y. Kondr., D. Upreti & Hur) (40)
- Haloplaca* Arup, Søchting & Frödén (31)

*Hosseusiella* S.Y. Kondr., L. Lökös, Kärnefelt & A. Thell (3)  
*Huneckia* S.Y. Kondr., Elix, Kärnefelt, A. Thell & Hur (2)  
*Ioplaca* Poelt (2)  
*Jasonhuria* S.Y. Kondr., Lökös & S.O. Oh (1)  
*Josefpoeltia* S.Y. Kondr. & Kärnefelt (3)  
*Kaernefia* S.Y. Kondr., Elix, A. Thell & Hur (3)  
*Leproplaca* (Nyl.) Nyl. (7)  
*Loekoesia* S.Y. Kondr., S.O. Oh & Hur (1)  
*Marchantiana* S.Y. Kondr., Kärnefelt, Elix, A. Thell & Hur (= *Streimanniella* S.Y. Kondr. et al.) (5)  
*Olegblumia* S.Y. Kondr., Lökös & Hur (1)  
*Orientophila* Arup, Söchting & Frödén (4)  
*Pachypeltis* Söchting, Arup & Frödén (4)  
*Parvoplaca* Arup, Söchting & Frödén (6)  
*Polycauliona* Hue (= ? *Tomnashia* S.Y. Kondr. & Hur) (18)  
*Pyrenodesmia* A. Massal. (6)  
*Rehmaniella* S.Y. Kondr. et al. (1)  
*Rufoplaca* Arup, Söchting & Frödén (6)  
*Rusavskia* S.Y. Kondr. & Kärnefelt (= ? *Zeroviella* S.Y. Kondr. & J.-S. Hur) (19)  
*Scutaria* Söchting, Arup & Frödén (1)  
*Seiophora* Poelt (ca. 8)  
*Shackletonia* Söchting, Frödén & Arup (5)  
*Sirenophila* Söchting, Arup & Frödén (= *Elixjohnia* S.Y. Kondr. & Hur; = *Tarasginia* S.Y. Kondr. et al.) (14)  
*Solitaria* Arup, Söchting & Frödén (1)  
*Squamulea* Arup, Söchting & Frödén (= *Huriella* S.Y. Kondr. & D. Upreti) (8)  
*Stellarangia* Frödén, Arup & Söchting (3)  
*Tassiloa* S.Y. Kondr., Kärnefelt, A. Thell, Elix & Hur (2)  
*Teloschistes* Norman (ca. 24)  
*Teloschistopsis* Frödén, Söchting & Arup (3)  
*Teuvoahtiana* S.Y. Kondr. & Hur (3)  
*Upretia* S.Y. Kondr., A. Thell & Hur  
*Usnochroma* Söchting, Arup & Frödén (2)  
*Variospora* Arup, Söchting & Frödén (16)  
*Villophora* Söchting, Arup & Frödén (= *Tayloriella* S.Y. Kondr. et al.; = *Tayloriellina* S.Y. Kondr. et al.) (4)  
*Wetmoreana* Arup, Söchting & Frödén (3)  
*Xanthocarpia* A. Massal. & De Not. (12)  
*Xanthomendoza* S.Y. Kondr. & Kärnefelt (20)  
*Xanthopeltis* R. Sant. (1)  
*Xanthoria* (Fr.) Th. Fr. (10)  
*Yoshimuria* S.Y. Kondr., Kärnefelt, Elix, A. Thell & Hur (= *Ikaeria* S.Y. Kondr., D. Upreti & Hur) (4)

***Teloschistales* genus *incertae sedis***

*Malcolmiella* Vězda (1)

***Lecanoromycetidae* familis *incertae sedis***

***Biatorrellaceae* M. Choisy ex Hafellner & Casares-Porcel**

*Biatorrella* De Not. (ca. 30)

***Helocarpaceae* Hafellner**

*Helocarpon* Fr. (3)

***Pachyascaceae*** Poelt ex P.M. Kirk, P.F. Cannon & J.C. David

*Pachyascus* Poelt & Hertel (1)

***Ostropomycetidae*** V. Reeb, Lutzoni & Cl. Roux

***Baeomycetales*** Lumbsch, Huhndorf & Lutzoni. (= *Arctomiales* S. Stenroos, Miądl. & Lutzoni; = *Hymeneliales* S. Stenroos, Miądl. & Lutzoni; = *Trapeliales* B.P. Hodk. & Lendemer)\*

***Arctomiaceae*** Th. Fr.

*Arctomia* Th. Fr. (14)

*Gregorella* Lumbsch (1)

*Steinera* Zahlbr. (14)\*

*Waweia* Henssen & Kantvilas (1)

***Arthrorhaphidaceae*** Poelt & Hafellner

*Arthrorhaphis* Th. Fr. (13)

***Baeomycetaceae*** Dumort.

*Ainoa* Lumbsch & I. Schmitt (2)

*Anamylopsora* Timdal (1)

*Baeomyces* Pers. (10)

*Parainoa* Resl & T. Sprib. (1)

*Phyllobaeis* Gierl & Kalb (6)

***Cameroniaceae*** Kantvilas & Lumbsch

*Cameronia* Kantvilas (2)

***Hymeneliaceae*** Körb.

*Hymenelia* Kremp. (26)

*Ionaspis* Th. Fr. (7)

*Tremolecia* M. Choisy (6)

***Protothelenellaceae*** Vězda, H. Mayrhofer & Poelt (= *Thrombiaceae* Poelt & Vězda ex J.C. David & D. Hawksw.)\*

*Mycowinteria* Sherwood (3)

*Protothelenella* Räsänen (11)

*Thrombium* Wallr. (5)

***Trapeliaceae*** M. Choisy ex Hertel

*Amylora* Rambold (1)

*Aspiciliopsis* (Müll. Arg.) M. Choisy (1)

*Coppinsia* Lumbsch & Heibel (1)

*Ducatina* Ertz & Söchting (1)\*

*Lignoscripta* B.D. Ryan (1)

*Orceolina* Hertel (2)

*Placopsis* (Nyl.) Linds. (ca. 60)

*Placynthiella* Elenkin (7)

*Rimularia* Nyl. (4)\*

*Sarea* Fr. (2)

*Trapelia* M. Choisy (24)

*Trapeliopsis* Hertel & Gotth. Schneid. (20)

***Xylographaceae*** Tuck.

- Lambiella* Hertel (12)
- Lithographa* Nyl. (10)
- Ptychographa* Nyl. (1)
- Xylographa* (Fr.) Fr. (2)

***Graphidales*** Bessey

***Diploschistaceae*** Zahlbr.

- Acanthothecis* Clem. (ca. 60)
- Acanthotrema* Frisch (5)
- Aggregatorygma* M. Cáceres, Aptroot & Lücking (1)
- Ampliotrema* Kalb ex Kalb (12)
- Asteristion* Leight. (9)
- Austrotrema* I. Medeiros, Lücking & Lumbsch (3)
- Borinquenotrema* Merc.-Díaz, Lücking & Parmen (1)
- Byssotrema* M. Cáceres (1)
- Carbacanthographis* Staiger & Kalb (28)
- Compositrema* Rivas Plata, Lücking & Lumbsch (4)
- Corticorygma* M. Cáceres, S.C. Feuerst., Aptroot & Lücking (1)
- Diploschistes* Norman (33)
- Fibrillithecis* A. Frisch (15)
- Gintarasia* Kraichak, Lücking & Lumbsch (5)
- Glaucotrema* Rivas Plata & Lumbsch (5)
- Gyrotrema* A. Frisch (6)
- Heiomasia* Nelsen, Lücking & Rivas Plata (3)
- Melanotopelia* Lumbsch & Mangold (4)
- Melanotrema* A. Frisch (12)
- Myrio-chapsa* M. Cáceres, Lücking & Lumbsch (3)
- Myriotrema* Fée (55)
- Nadvornikia* Tibell (5)
- Nitido-chapsa* Parmen, Lücking & Lumbsch (5)
- Ocellularia* G. Mey. (ca. 400)
- Phaeographopsis* Sipman (3)
- Pseudoramonia* Kantvilas & Vězda (4)
- Redingeria* A. Frisch (8)
- Reimnitzia* Kalb (1)
- Rhabdodiscus* Vain. (35)
- Sanguinotrema* Lücking (1)
- Schizotrema* Mangold & Lumbsch (6)
- Stegobolus* Mont. (16)
- Topeliopsis* Kantvilas & Vězda (20)
- Wirthiotrema* Rivas Plata, Kalb, Frisch & Lumbsch (5)
- Xalocoa* Kraichak, Lücking & Lumbsch (1)

***Fissurinaceae*** (Rivas Plata, Lücking & Lumbsch) B.P. Hodk.

- Clandestinotrema* Rivas Plata, Lücking & Lumbsch (17)
- Cruentotrema* Rivas Plata, Papong, Lumbsch & Lücking (6)
- Dyplolabia* A. Massal. (5)
- Enigmatrema* Lücking (1)
- Fissurina* Fée (ca. 155)
- Pycnotrema* Rivas Plata & Lücking (2)



**Gomphillaceae** Walt. Watson

- Actinoplaca* Müll. Arg. (2)  
*Aderkomyces* Bat. (30)  
*Aplanocalenia* Lücking, Sérus. & Vězda (1)  
*Arthotheliopsis* Vain. (5)  
*Asterothyrium* Müll. Arg. (32)  
*Aulaxina* Fée (14)  
*Calenia* Müll. Arg. (30)  
*Caleniopsis* Vězda & Poelt (2)  
*Corticifraga* D. Hawksw. & R. Sant. (7)\*  
*Diploschistella* Vain. (4)  
*Echinoplaca* Fée (40)  
*Ferraroa* Lücking, Sérus. & Vězda (1)  
*Gomphillus* Nyl. (6)  
*Gyalectidium* Müll. Arg. (52)  
*Gyalidea* Lettau (50)  
*Gyalideopsis* Vězda (91)  
*Hippocrepidea* Sérus. (1)  
*Jamesiella* Lücking, Sérus. & Vězda (4)  
*Lithogyalideopsis* Lücking, Sérus. & Vězda (4)  
*Paratricharia* Lücking (1)  
*Paragyalydeopsis* Etayo (4)  
*Phyllogyalidea* Lücking & Aptroot (2)  
*Psorotheciopsis* Rehm (7)  
*Rolueckia* Papong, Thammath. & Boonpr. (2)  
*Taitaia* Suija, Kaasalainen, Kirika & Rikkinen (1)\*  
*Tricharia* Fée (ca. 30)

**Graphidaceae** Dumort.

- Allographa* Chevall. (183)\*  
*Amazonotrema* Kalb & Lücking (1)  
*Anomalographis* Kalb (2)  
*Anomomorpha* Nyl. ex Hue (8)  
*Creographa* A. Massal. (1)  
*Cryptoschizotrema* Aptroot, Lücking & M. Cáceres (1)  
*Diaphorographis* A.W. Archer & Kalb (2)  
*Diorygma* Eschw. (74)  
*Flegographa* A. Massal. (1)  
*Glyphis* Ach. (7)  
*Graphis* Adans. (ca. 275)  
*Halegrapha* Rivas Plata & Lücking (9)  
*Hemithecium* Trevis. (ca. 50)  
*Kalbograptha* Lücking (5)  
*Leiorreuma* Eschw. (18)  
*Malmographina* M. Cáceres, Rivas Plata & Lücking (1)  
*Mangoldia* Lücking, Parnmen & Lumbsch (2)  
*Pallidogramme* Staiger, Kalb & Lücking (13)  
*Phaeographis* Müll. Arg. (ca. 180)  
*Platygramme* Fée (30)  
*Platythecium* Staiger (27)  
*Pliariona* A. Massal. (= *Phaeographina* Müll. Arg.) (1)  
*Polistroma* Clemente (1)

*Pseudochapsa* Parmen, Lücking & Lumbsch (18)  
*Pseudotopeliopsis* Parmen, Lücking & Lumbsch (4)  
*Sarcographa* Fée (37)  
*Sarcographina* Müll. Arg. (6)  
*Schistophoron* Stirt. (5)  
*Thalloloma* Trevis. (20)  
*Thecaria* Fée (4)  
*Thecographa* A. Massal. (3)

***Redonographaceae*** (Lücking, Tehler & Lumbsch) Lumbsch (Bas.: *Redonographoideae* Lücking, Tehler & Lumbsch, Am. J. Bot. 100: 846 2013)

*Gymnographopsis* C.W. Dodge (2)  
*Redonographa* Lücking, Tehler & Lumbsch (4)

***Thelotremataceae*** Stizenb.

*Astrochapsa* Parmen, Lücking & Lumbsch (28)  
*Chapsa* A. Massal. (ca. 60)  
*Chroodiscus* (Müll. Arg.) Müll. Arg. (17)  
*Crutarndina* Parmen, Lücking & Lumbsch (1)  
*Leucodecton* A. Massal. (31)  
*Paratopeliopsis* Merc.-Díaz, Lücking & Parmen (1)  
*Thelotrema* Ach. (= *Tremotylum* Nyl.) (106)

***Gyalectales*** Henssen ex D. Hawksw. & O.E. Erikss.

***Coenogoniaceae*** (Fr.) Stizenb.

*Coenogonium* Ehrenb. ex Nees (ca. 91)

***Gyalectaceae*** (A. Massal.) Stizenb.

*Gyalecta* Ach. (= *Cryptolechia* A. Massal.) (50)  
*Ramonia* Stizenb. (24)  
*Semigyalecta* Vain. (1)

***Phlyctidaceae*** Poelt & Vězda ex J.C. David & D. Hawksw.

*Phlyctis* (Wallr.) Flot. (20)  
*Psathyrophlyctis* Brusse (1)

***Sagiolechiaceae*** Baloch, Lücking, Lumbsch & Wedin

*Rhexophiale* Th. Fr. (1)  
*Sagiolechia* A. Massal. (3)

***Trichotheliaceae*** Bitter & F. Schill. (= *Porinaceae* Walt. Watson; = *Porinaceae* Rchb.)

*Clathroporina* Müll. Arg. (ca. 25)  
*Flabelloporina* Sobreira, M. Cáceres & Lücking (1)  
*Myeloconis* P.M. McCarthy & Elix (4)  
*Porina* Müll. Arg. (ca. 145)  
*Pseudosagedia* (Müll. Arg.) Choisy (80)  
*Segestria* Fr. (70)  
*Trichothelium* Müll. Arg. (40)

***Ostropales*** Nannf.

***Odontotremataceae*** D. Hawksw. & Sherwood

*Claviradulomyces* P.R. Johnst., D.C. Park, H.C. Evans, R.W. Barreto & D.J. Soares (1)

*Coccomycetella* Höhn. (2)  
*Odontotrema* Nyl. (7)  
*Odontura* Clem. (1)  
*Paschelkiella* Sherwood (1)  
*Potriphila* Döbbeler (3)  
*Rogellia* Döbbeler (2)  
*Stromatothecia* D.E. Shaw & D. Hawksw. (1)  
*Tryblis* Clem. (2)  
*Xerotrema* Sherwood & Coppins (2)

***Phaneromycetaceae*** Gamundí & Spinedi

*Phaneromyces* Speg. & Har. ex Speg. (2)

***Spirographaceae*** Flakus, Etayo & Miadlikowska

*Spirographa* Zahlbr. (5)

***Stictidaceae*** Fr.

*Absconditella* Vězda (12)  
*Acarosporina* Sherwood (5)  
*Biostictis* Petr. (5)  
*Carestiella* Bres. (1)  
*Conotremopsis* Vězda (1)  
*Cryptodiscus* Corda (= *Lettauia* D. Hawksw. & R. Sant.) (9)\*  
*Cyanodermella* O.E. Erikss. (2)  
*Delpontia* Penz. & Sacc. (1)  
*Dendroseptoria* Alcalde (3)  
*Fitzroyomyces* Crous (1)  
*Geisleria* Nitschke (1)  
*Glomerobolus* Kohlm. & Volkm.-Kohlm. (1)  
*Ingvariella* Guderley & Lumbsch (1)  
*Karstenia* Fr. (10)  
*Lillicoa* Sherwood (4)  
*Nanostictis* M.S Christ. (ca. 8)  
*Neofitzroyomyces* Crous (1)  
*Ostropa* Fr. (1)  
*Propoliopsis* Rehm (1)  
*Robergea* Desm. (8)  
*Schizoxylon* Pers. (ca. 35)  
*Sphaeropezia* Sacc. (= *Lethariicola* Grumann) (19)  
*Stictis* Pers. (4)  
*Stictophaacidium* Rehm (3)  
*Thelopsis* Nyl. (9)  
*Topelia* P.M. Jørg. & Vězda (6)  
*Trinathotrema* Lücking, Rivas Plata & Mangold (3)  
*Xyloschistes* Vain. ex Zahlbr. (1)

***Ostropales*** genera *incertae sedis*

*Aabaarnia* Diederich (1)  
*Biazrovia* Zhurb. & Etayo (1)  
*Elongaticonidia* W.J. Li, E. Camporesi & K.D. Hyde (1)  
*Epicladonia* D. Hawksw. *sensu lato* (2)\*  
*Normanogalla* Diederich (1)

*Paraethariicola* Calat., Etayo & Diederich (1)

***Pertusariales*** M. Choisy ex D. Hawksw. & O.E. Erikss.

***Agyriaceae*** Corda (= *Miltideaceae* Hafellner)\*

*Agyrium* Fr. (3)

*Miltidea* Stirt. (1)

***Coccotremataceae*** Henssen ex J.C. David & D. Hawksw.

*Coccotrema* Müll. Arg. (16)

*Gyalectaria* I. Schmitt, Kalb & Lumbsch (3)

*Parasiphula* Kantvilas & Grube (7)

***Icmadophilaceae*** Triebel

*Dibaeis* Clem. (ca. 14)

*Endocena* Cromb. (= *Chirleja* Lendemmer & B.P. Hodk.) (2)

*Icmadophila* Trevis. (4)

*Pseudobaeomyces* M. Satì (1)

*Siphula* Fr. (26)

*Siphulella* Kantvilas, Elix & P. James (1)

*Thamnotia* Ach. ex Schaerer (4)

***Megasporaceae*** Lumbsch

*Aspicilia* A. Massal. (ca. 200)

*Circinaria* Link (ca. 40)

*Lobothallia* (Clauzade & Cl. Roux) Hafellner (12)

*Megaspora* (Clauzade & Cl. Roux) Hafellner & V. Wirth (4)

*Sagedia* Ach. (ca. 30)

*Teuvoa* Sohrabi & S. Leavitt (5)

***Microcaliciaceae*** Tibell\*

*Microcalicium* Vain. (4)

***Ochrolechiaceae*** R.C. Harris ex Lumbsch & I. Schmitt

*Ochrolechia* A. Massal. (60)

***Pertusariaceae*** Körb. ex Körb.

*Loxosporopsis* Henssen (1)

*Pertusaria* DC. (ca. 400)\*

*Thamnochrolechia* Aptroot & Sipman (1)

***Varicellariaceae*** B.P. Hodk., R.C. Harris & Lendemmer ex Lumbsch & Leavitt

*Varicellaria* Nyl. (8)\*

***Variolariaceae*** Fée ex Zenker

*Lepra* Scop. (= *Marfloraea* S.Y. Kondr., Lökös & Hur) (94)

***Sarrameanales*** B.P. Hodk. & Lendemmer

***Sarrameanaceae*** Hafellner

*Loxospora* A. Massal. (13)

*Sarrameana* Vězda & P. James (1)

***Schaereriales*** Lumbsch & Leavitt

**Schaereriaceae** M. Choisy ex Hafellner

*Schaereria* Körb. (= *Hafellnera* Houmeau & Cl. Roux) (16)

**Thelenellales** Lumbsch & Leavitt

**Thelenellaceae** O.E. Erikss. ex H. Mayrhofer

*Aspidothelium* Vain. (17)

*Chromatochlamys* Trevis. (3)

*Thelenella* Nyl. (30)

**Ostropomycetidae** family *incertae sedis*

**Epigloeaceae** Zahlbr.

*Epigloea* Zúkal (12)

**Ostropomycetidae** genera *incertae sedis*

*Amphorotheceium* P.M. McCarthy, Kantvilas & Elix (1)

*Anzina* Scheid. (1)

*Aspilidea* Hafellner (1)

*Bachmanniomyces* D. Hawksw. (8)

*Dictyocatenulata* Finley & E.F. Morris (1)

*Malvinia* Döbbeler (1)

*Pleiopatella* Rehm (1)

**Umbilicariomycetidae** Bendiksby, Hestmark & Timdal

**Umbilicariales** J.C. Wei & Q.M. Zhou

**Elixiaceae** Lumbsch

*Elixia* Lumbsch (2)

*Meridianelia* Kantvilas & Lumbsch (1)

**Fuscideaceae** Hafellner

*Fuscidea* V. Wirth & Vězda (ca. 40)

*Hueidea* Kantvilas & P.M. McCarthy (1)

*Maronea* A. Massal. (13)

*Orphniospora* Körb. (4)

**Ophioparmaceae** R.W. Rogers & Hafellner

*Boreoplaca* Timdal (1)

*Hypocenomyce* M. Choisy (3)

*Ophioparma* Norman (9)

**Ropalosporaceae** Hafellner

*Ropalospora* A. Massal. (9)

**Umbilicariaceae** Chevall.

*Fulgidea* Bendiksby & Timdal (2)

*Umbilicaria* Hoffm. (= *Lasallia* Mérat) (ca. 90) \*

*Xylopsora* Bendiksby & Timdal (2)

**Lecanoromycetes** order *incertae sedis*

**Micropeltidales** X.Y. Zeng, H.X. Wu & K.D. Hyde

**Micropeltidaceae** Clem. & Shear\*

*Anariste* Syd. (1)

*Caudella* Syd. & P. Syd. (2)

*Cyclopeltella* Petr. (1)  
*Dictyopeltella* Bat. & I.H. Lima (2)  
*Haplopelthea* Bat., J.L. Bezerra & Cavalc. (1)  
*Micropeltis* Mont. (ca. 110)  
*Neopeltella* Petr. (1)  
*Scolecopeltidium* F. Stevens & Manter (ca. 80)  
*Stomiopeltis* Theiss. (25)  
*Stomiopeltopsis* Bat. & Cavalc. (2)  
*Stomiotheca* Bat. (2)

***Turquoiseomycetales*** Crous

***Turquoiseomycetaceae*** Crous

*Turquoiseomyces* Crous (1)

***Lecanoromycetes*** genera *incertae sedis*

*Argopsis* Th. Fr. (1)  
*Ascographa* Velen. (1)  
*Bartlettiella* D.J. Galloway & P.M. Jørg. (1)  
*Bouvetiella* Øvstedal (1)  
*Buelliastrum* Zahlbr. (1)  
*Haploloma* Trevis. (1)  
*Hosseusia* Gyeln. (3)  
*Korfiomyces* Iturr. & D. Hawksw. (1)  
*Maronella* M. Steiger (1)  
*Notolecidea* Hertel (1)  
*Petractis* Fr. (3)  
*Piccolia* A. Massal. (ca. 7)  
*Ravenelula* Speg. (1)  
*Robincola* Velen. (1)  
*Roburnia* Velen. (1)

***Leotiomyces*** O.E. Erikss. & Winka

***Chaetomellales*** Crous & Denman

***Chaetomellaceae*** Baral, P.R. Johnst. & Rossman

*Chaetomella* Fuckel (26)  
*Pilidium* Kunze (23)  
*Sphaerographium* Sacc. (23)  
*Synchaetomella* Decock & Seifert (3)

***Cyttariales*** Luttr. ex Gamundí

***Cyttariaceae*** Speg.

*Cyttaria* Berk. (13)

***Helotiales*** Nannf. ex Korf & Lizoň

***Amorphothecaceae*** Parbery\*

*Amorphotheca* Parbery (21 *vide* Baral 2016)

***Arachnopezizaceae*** Hosoya, J.G. Han & Baral

*Arachnopeziza* Fuckel (35)  
*Arachnoscypha* Boud. (1)  
*Austropezia* Spooner (1)  
*Eriopezia* (Sacc.) Rehm (21)

*Parachnopeziza* Korf (8)

**Ascocorticiaceae** J. Schrot

*Ascocorticiellum* Julich & B. de Vries (1)

*Ascocorticium* Bref. (2)

*Ascosorus* P. Henn. & Ruhland (1)

**Ascodichaenaceae** D. Hawksw. & Sherwood

*Ascodichaena* Butin (2)

*Delpinoia* Kuntze (1)

**Bloxamiaceae** Locq.

*Bloxamia* Berk. & Broome (10)

**Bryoglossaceae** Ekanayaka & Hyde

*Bryoclaviculus* L. Ludw., P.R. Johnst. & Steel (1)

*Bryoglossum* Redhead (2)

“*Crocicreas*” *multicuspidatum* (1)

*Neocudoniella* S. Imai (3)

“*Roseodiscus*” *formosus* (1)

**Calloriaceae** Marchand

*Aivenia* Svrcek (4)

*Calloria* Fr. (28)

*Chaetonaevia* Arx (3)

*Diplonaevia* Sacc. (33)

*Duebenia* Fr. (6)

*Eupropolella* Hohn. (8)

*Hyalacrotus* (Korf & L.M. Kohn) Raitv. (5)

*Iridinea* Velen. (2)

*Laetinaevia* Nannf. (19)

*Loricella* Velen. (6)

*Micropodia* Boud. (15)

*Naeviella* (Rehm) Clem. (3)

*Naeviopsis* B. Hein (14)

*Ploettnera* Henn. (6)

**Cenangiaceae** Rehm (= *Hemiphacidiaceae* Korf)\*

*Cenangiopsis* Rehm (9)

*Cenangium* Fr. (47)

*Chlorencoelia* J.R. Dixon (4)

*Crumenulopsis* J.W. Groves (3)

*Encoelia* (Fr.) P. Karst. (38)

*Fabrella* Kirschst. (1)

*Heyderia* Link (4)

*Rhabdocline* Syd. (7)

*Sarcotrochila* Hohn. (7)

*Trochila* Fr. (33)

*Velutarina* Korf (3)

**Chlorociboriaceae** Baral & P.R. Johnst.\*

*Chlorociboria* Seaver ex C.S. Ramamurthi, Korf & L.R. Batra (23)

***Chlorospleniaceae*** Ekanayaka & Hyde

*Chlorosplenium* Fr. (17)

***Chrysodiscaceae*** Baral & Haelew.\*

*Chrysodisca* Baral, Polhorský & G. Marson (1)

***Cordieritidaceae*** Sacc.

- Ameghiniella* Speg. (2)  
*Annabella* Fryar, Haelew. & D.E.A. Catches. (1)  
*Austrocenangium* Gamundí (2)  
*Cordierites* Mont. (5)  
*Diplocarpa* Masee (1)  
*Diplolaeviopsis* Giralt & D. Hawksw. (3)  
“*Encoelia*” *fimbriata* Spooner & Trigaux (1)  
“*Encoelia*” *heteromera* (Mont.) Nannf. (1)  
*Ionomidotis* E.J. Durand ex Thaxt. (4)  
*Llimoniella* Hafellner & Nav.-Ros. (21)  
*Macroskyttea* Etayo, Flakus, Suija & Kukwa (1)  
*Midotiopsis* Henn. (2)  
*Rhymbocarpus* Zopf (10)  
*Sabahriopsis* Crous & M.J. Wingf. (1)  
*Skyttea* Sherwood, D. Hawksw. & Coppins (30)  
*Skyttella* D. Hawksw. & R. Sant. (2)  
*Thamnogalla* D. Hawksw. (1)  
*Unguiculariopsis* Rehm (29)

***Dermateaceae*** Fr.

- Coleophoma* Hohn. (= *Parafabraea* Chen Chen et al.) (30)\*  
*Corniculariella* P. Karst. (3)  
*Dermea* Fr. (24)  
*Gelatinoamylaria* Prasher & R. Sharma (1)\*  
*Neodermea* W.J. Li, D.J. Bhat & K.D. Hyde (1)  
*Neofabraea* H.S. Jacks. (9)  
*Neogloeosporidina* W.J. Li, Camporesi & K.D. Hyde (1)  
*Pezicula* Tul. & C. Tul. (92)  
*Phlyctema* Desm. (60)  
*Pseudofabraea* Chen Chen, Verkley & Crous (1)  
*Rhizodermea* Verkley & Zijlstra (1)  
*Schizothyrioma* Hohn (4)  
*Verkleyomyces* Y. Marin & Crous (1)  
*Xenochalara* M.J. Wingf. & Crous (1)

***Discinellaceae*** Ekanayaka & K.D. Hyde\*

- Articulospora* Ingold (6)  
*Cladochasiella* Marvanova (1)  
*Discinella* Boud. (13)  
*Fontanospora* Dyko (4)  
*Gyoerffyella* Kol (10)  
*Lemonniera* De Wild. (8)  
*Margaritispota* Ingold (2)  
*Naevala* B. Hein (5)  
*Pezoloma* Clem. (14)



*Pseudopezicula* Korf (2)  
*Tetrachaetum* Ingold (1)  
*Varicosporium* W. Kegel (9)

***Drepanopezizaceae*** Baral\*

*Blumeriella* Arx (7)  
*Diplocarpon* F.A. Wolf (7)  
*Drepanopeziza* (Kleb.) Hohn. (5)  
*Felisbertia* Viegas (7)  
*Leptotrochila* P. Karst. (15)  
*Pseudopeziza* Fuckel (2)  
*Spilopodia* Boud. (4)  
*Spilopodiella* E. Mull. (1)

***Erysiphaceae*** Tul. & C. Tul.

*Arthrocladiella* Vassilkov (1)  
*Blumeria* Golovin ex Speer (1)  
*Brasiliomyces* Viegas (6)  
*Bulbomicroidium* Marm., S. Takam. & U. Braun (1)\*  
*Caespitotheca* S. Takam. & U. Braun (1)  
*Cystotheca* Berk. & Curtis (9)  
*Erysiphe* DC. (478)  
*Golovinomyces* (U. Braun) Heluta (66)  
*Leveillula* G. Arnaud (49)  
*Microidium* (To-anun & S. Takam.) To-anun & S. Takam. (3)  
*Neoerysiphe* U. Braun (15)  
*Parauncinula* S. Takam. & U. Braun (4)  
*Phyllactinia* Lev. (117)  
*Pleochaeta* Sacc. & Speg. (5)  
*Podosphaera* Kunze (124)  
*Pseudoidium* Y.S. Paul & J.N. Kapoor (80)  
*Queirozia* Viegas & Cardoso (1)  
*Sawadaea* Miyabe (10)  
*Takamatsuella* U. Braun & A. Shi (1)  
*Typhulochaeta* Ito & Hara (4)

***Gelatinodiscaceae*** S.E. Carp

*Ascocoryne* J.W. Groves & D.E. Wilson (8)  
*Ascotremella* Seaver (2)  
*Chloroscypha* Seaver (14)  
*Didymocoryne* Sacc. & Trotter (1)  
*Neobulgaria* Petr. (11)  
*Ombrophila* Fr. (11)  
*Phaeangellina* Dennis (1)  
*Skyathea* Spooner & Dennis (1)  
*Xerombrophila* Baral (1)

***Godroniaceae*** Baral

*Ascocalyx* Naumov (4)  
*Atropellis* Zeller & Goodd. (4)  
*Godronia* Moug. & Lev. (30)  
*Gremmeniella* M. Morelet (3)

*Grovesiella* M. Morelet (2)\*

***Helotiaceae* Rehm**

*Ascoconidium* Seaver (3)  
*Bisporella* Sacc. (19)  
*Bryoscyphus* Spooner (19)  
*Calycella* (Sacc.) Sacc. (1)  
*Cudoniella* Sacc. (31)  
*Cyathicula* De Not. (30)  
*Dicephalospora* Spooner (4)  
*Dimorphospora* Tubaki (1)  
*Discorehmia* Kirschst. (5)  
*Eubelonis* Hohn. (2)  
*Filosporella* Nawawi (6)  
*Geniculospora* Sv. Nilsson ex Marvanová & Sv. Nilsson (2)  
*Glarea* Bills & Palaez (2)  
*Gloeotinia* M. Wilson, Noble & E.G. Gray (2)  
*Graddonia* Dennis (7)  
*Gremmenia* Korf (4)  
*Helicodendron* Peyronel (3)  
*Hymenoscyphus* Gray (170)  
*Hymenotorrendiella* P.R. Johnst., Baral & R. Galán (9)  
*Muscicola* Velen. (1)  
*Mycofalcella* Marvanová, Om-Kalth. & J. Webster (2)  
*Mytilodiscus* Kropp & S.E. Carp. (1)  
*Neocrinula* Crous (2)  
*Phaeohelotium* Kanouse (41)  
*Pithyella* Boud. (8)  
*Pseudohelotium* Fuckel (50)  
*Pseudoniptera* Velen. (25)  
*Roesleria* Thüm. & Pass. (4)\*  
*Scytalidium* Pesante (30)  
*Symphyosirinia* E.A. Ellis (6)  
*Tatraea* Svrcek (2)  
*Tricladium* Ingold (25)  
*Xylogramma* Wallr. (18)

***Heterosphaeriaceae* Rehm**

*Heterosphaeria* Grev. (7)

***Hyaloscyphaceae* Nannf.\***

*Aeruginoscyphus* Dougoud (7)\*  
*Ambrodiscus* S.E. Carp. (1)  
*Amicodisca* Svrcek (6)  
*Arbusculina* Marvanova & Descals (3)  
*Asperopilum* Spooner (1)  
*"Chalara" longipes* (Preuss) Cooke (1)  
*Clathrosphaerina* Beverw. (2)  
*Crucellisporiopsis* Nag Raj (3)  
*Dematioscypha* Svrcek (4)  
*Dimorphotricha* Spooner (1)  
*Echinula* Graddon (1)

*Endoscypha* Syd. (1)  
*Fuscolachnum* J.H. Haines (7)  
*Gamarada* D.J. Midgley & Tran-Dinh (1)  
*Graddonidiscus* Raitv. & R. Galan (3)  
*Grahamiella* Spooner (3)  
*Haplographium* Berk. & Broome (15)  
*Hegermila* Raitv. (4)  
*Hyalopeziza* Fuckel (15)  
*Hyaloscypha* Boud. (45)  
*Hyphodiscus* Kirschst. (16)  
*Hyphopeziza* J.G. Han, Hosoya & H.D. Shin (1)  
*Incrupila* Raitv. (10)  
*Meliniomyces* Hambl. & Sigler (3)  
*Mycoarthritis* Marvanova & P.J. Fisher (1)  
*Olla* Velen. (2)  
*Polaroscyphus* Huhtinen (1)  
*Proprioscypha* Spooner (1)  
*Protounguicularia* Raitv. & Galan (10)  
*Pseudaegerita* J.L. Crane & Schokn. (7)\*  
*Psilocistella* Svrcek (10)  
*Rhizoscyphus* W.Y. Zhuang & Korf (1)  
*Scolecachnum* Guatim., R.W. Barreto & Crous (2)\*  
*Thindiomyces* Arendh. & R. Sharma (1)  
*Unguiculariella* K.S. Thind & R. Sharma (1)  
*Unguiculella* Hohn (17)  
*Venturiocistella* Raitv (7)

***Lachnaceae*** (Nannf.) Raitv.

*Albotricha* Raitv. (19)  
*Belonidium* Mont. & Dur. (1)  
*Brunnipila* Baral (10)  
*Capitotricha* (Raitv.) Baral (10)  
*Dasyscyphella* Tranzschel (1)  
*Erioscyphella* Kirschst. (10)  
*Incrucipulum* Baral (6)  
*Lachnellula* P. Karst. (40)  
*Lachnopsis* Guatim., R.W. Barreto & Crous (2)\*  
*Lachnum* Retz. (50)  
*Lasiobelonium* Ellis & Everh. (20)  
*Neodasyscypha* Sukova & Spooner (2)  
*Perrotia* Boud. (19)  
*Proliferodiscus* J.H. Haines & Dumont (8)  
*Solenopezia* Sacc. (7)  
*Trichopeziza* Fuckel (30)  
*Tubolachnum* Velen (2)  
*Velebitea* I. Kušan, Matočec & Jadan (1)

***Leptodontidiaceae*** Hern.-Restr., Crous & Gené

*Leptodontidium* de Hoog. (11)

***Loramycetaceae*** Dennis ex Digby & Goos

*Loramycetes* W. Weston (2)

*Obtectodiscus* E. Müll., Petrini & Samuels (2)

**Mitrulaceae** Rehb.

*Mitrulella* Fr. (16)

**Mollisiaceae** Rehm

*Barrenia* E. Walsh & N. Zhang (2)\*  
*Bulbomollisia* Graddon (1)  
*Cheirospora* Moug. & Fr. (2)\*  
*Cystodendron* Bubak (2)  
*Discocurtisia* Nannf. (12)  
*Fuscosclera* Hern.-Restr., J. Mena & Gené (1)\*  
*Mollisia* (Fr.) P. Karst. (130)  
*Neotapesia* E. Mull. & Hutter (3)  
*Niptera* Fr. (10)  
*Nipterella* Starback ex Dennis (2)  
*Phialocephala* W.B. Kendr. (37)\*  
*Pseudonaevia* Dennis & Spooner (2)  
*Sarconiptera* Raitv. (1)  
*Scutobelonium* Graddon (1)  
*Scutomollisia* Nannf. (14)  
*Tapesia* (Pers.) Fuckel (110)\*  
*Trimmatostroma* Corda (30)  
*Variocladium* Descals & Marvanova (1)

**Myxotrichaceae** Currah\*

*Byssoascus* Arx (1)  
“*Malbranchea*” *flavorosea* Sigler & J.W. Carmich. (1)  
*Myxotrichum* Kunze (17)  
*Oidiodendron* Robak (26)

**Neolauriomycetaceae** Crous\*

*Exochalara* W. Gams & Hol.-Jech. (3)  
*Lareunionomyces* Crous & M.J. Wingf. (4)  
*Neolauriomycetes* Crous (1)

**Pezizellaceae** Velen.

*Allophylaria* (P. Karst.) P. Karst. (6)  
*Antinoa* Velen. (8)  
*Calycellina* Hohn (45)  
*Calycina* Nees ex Gray (30)  
*Chalara* (Corda) Rabenh. (99)  
*Ciliolarina* Svrcek (1)  
*Curviclavula* G. Delgado, F.A. Fernández & A.N. Mill. (1)  
*Hamatocanthoscypha* Svrcek (3)  
*Hyalodendriella* Crous (1)  
*Micropeziza* Fuckel (12)  
*Microscypha* Syd. & P. Syd. (6)  
*Mollisina* Hohn. ex Weese (11)  
*Mollisinopsis* Arendh. & R. Sharma (3)  
*Moserella* Poder & Scheuer (1)  
*Phaeoscypha* Spooner (1)

*Phialina* Höhn. (6)\*  
*Poculinia* Spooner (1)  
*Psilachnum* Hohn. (28)  
*Rodwayella* Spooner (3)  
*Scleropezicula* Verkley (6)  
*Velutaria* Fuckel (1)  
*Xenopolyscytalum* Crous (1)  
*Zymochalara* Guatim., R.W. Barreto & Crous (2)\*

***Ploettnerulaceae*** Kirschst.

*Cadophora* Lagerb. & Melin (15)  
*Collembolispora* Marvanova & Pascoal (2)  
*Cylindrosporium* Grev. (168)\*  
*Dennisiodiscus* Svrcek (10)  
*Lasiomollisia* Raitv. & Vesterh. (1)  
*Mastigosporium* Riess (4)  
*Mycochaetophora* Hara & Ogawa (2)  
*Nothophaacidium* J. Reid & Cain (1)  
*Oculimacula* Crous & W. Gams (6)  
*Pirottaea* Sacc. (28)  
*Pyrenopeziza* Fuckel (3)  
*Rhynchosporium* Heinsen ex A.B. Frank (5)

***Rutstroemiaceae*** Holst-Jensen, L.M. Kohn & T. Schumach.\*

*Bicornispora* Checa, Barrasa, M.N. Blanco & A.T. Martínez (2)  
*Dencoeliopsis* Korf (2)  
*Lambertella* Hohn. (6)  
*Lanzia* Sacc. (1)  
*Pseudolanzia* Baral & G. Marson (1)\*  
*Rutstroemia* P. Karst. (100)  
*Torrendiella* Boud. & Torrend (3)

***Sclerotiniaceae*** Whetzel ex Whetzel

*Amphobotrys* Hennebert (1)  
*Botrytis* P. Micheli ex Pers. (3)  
*Ciboria* Fuckel (21)  
*Ciborinia* Whetzel (16)  
*Cristulariella* Hohn. (5)  
*Cudoniopsis* Speg. (1)  
*Dumontinia* L.M. Kohn (5)  
*Elliottinia* L.M. Kohn (1)  
*Grovesinia* M.N. Cline, J.L. Crane & S.D. Cline (2)  
*Haradamycetes* Masuya, Kusunoki, Kosaka & Aikawa (1)  
*Kohninia* Holst-Jensen, Vrålstad & T. Schumach. (1)  
*Martininia* Dumont & Korf (1)  
*Monilinia* Honey (30)  
*Mycopappus* Redhead & G.P. White (3)\*  
*Myrioconium* Syd. & P. Syd. (10)  
*Myriosclerotinia* N.F. Buchw. (10)  
*Ovulinia* Weiss (9)  
*Phaeosclerotinia* Hori (1)  
*Piceomphale* Svrcek (1)

*Pseudociboria* Kanouse (1)  
*Pycnopeziza* W.L. White & Whetzel (5)  
*Redheadia* Y. Suto & Suyama (1)  
*Sclerencoelia* Pärtel & Baral (3)\*  
*Scleromitrulea* S. Imai (6)  
*Sclerotinia* Fuckel (15)  
*Sclerotium* Tode (100)  
*Seaverinia* Whetzel (2)  
*Septotinia* Whetzel ex J.W. Groves & M.E. Elliott (2)  
*Streptotinia* Whetzel (3)  
*Stromatinia* (Boud.) Boud. (15)  
*Valdensia* Peyronel (3)

#### ***Vibrisseaceae*** Korf

*Acephala* Grunig & T.N. Sieber (2)  
*Chlorovibrissea* L.M. Kohn (4)  
*Leucovibrissea* (A. Sanchez) Korf (1)  
*Pocillum* De Not. (1)  
*Vibrissea* Fr (34)

#### ***Helotiales*** genera *incertae sedis*

*Acidea* Hujslova & M. Kolarik (1)  
*Acidomelania* E. Walsh & N. Zhang (1)  
*Algincola* Velen. (1)  
*Amylocarpus* Curr. (1)  
*Angelina* Fr. (1)  
*Apiculospora* Wijayaw., Camporesi, A.J.L. Phillips & K.D. Hyde (1)  
*Aquadiscula* Shearer & J.L. Crane (2)  
*Aquapoterium* Raja & Shearer (1)  
*Ascluella* DiCosmo, Nag Raj & W.B. Kendr. (1)  
*Ascoclavulina* Otani (8)  
*Banksiamyces* G. Beaton (4)  
*Belonioscyphella* Hohn. (4)  
*Benguetia* Syd. & P. Syd. (1)  
*Bioscypha* Syd. (2)  
*Brachyalara* Reblova & W. Gams (1)  
*Brefeldochium* Verkley (1)  
*Bulgariella* P. Karst. (4)  
*Bulgariopsis* Henn. (2)  
*Calycellinopsis* W.Y. Zhuang (1)  
*Capillipes* R. Sant. (1)  
*Capricola* Velen. (1)  
*Cashiella* Petr. (3)  
*Cejpia* Velen. (3)  
*Cenangiumella* J. Frohl. & K.D. Hyde (1)  
*Chloroepilichen* Etayo (1)  
*Chlorospleniella* P. Karst. (1)  
*Chondroderris* Maire (1)  
*Ciliella* Sacc. & P. Syd. (1)  
*Cistella* Quel. (50)  
*Clathrosporium* Nawawi & Kuthub. (1)  
*Coleosperma* Ingold (1)

*Colipila* Baral & Guy Garcia (2)  
*Comesia* Sacc. (3)  
*Cornuntum* Velen. (1)  
*Coronellaria* P. Karst. (4)  
*Criserosphaeria* Speg. (1)  
*Crocicreas* Fr. (4)  
*Crucellisporium* M.L. Farr (3)  
*Crumenella* P. Karst. (1)  
*Cryptohymenium* Samuels & L.M. Kohn (1)  
*Cryptopezia* Hohn. (1)  
*Dactylaria* Sacc. (100)  
*Dawsicola* Dobbeler (1)  
*Dermateopsis* Nannf. (2)  
*Didonia* Velen. (5)  
*Didymascella* Maire & Sacc. (5)  
*Discomycella* Hohn. (1)  
*Durella* Tul. & C. Tul. (22)\*  
*Echinodiscus* Etayo & Diederich (2)  
*Encoeliopsis* Nannf. (4)  
*Episclerotium* L.M. Kohn (2)  
*Erikssonopsis* M. Morelet (1)  
*Fulvoflamma* Crous (1)  
*Gloeopeziza* Zokal (8)  
*Godroniopsis* Diehl & E.K. Cash (3)  
*Gorgoniceps* (P. Karst.) P. Karst. (3)  
*Grimmicola* Dobbeler & Hertel (1)  
*Grovesia* Dennis (1)  
*Hemiglossum* Pat. (2)  
*Humicolopsis* Cabral & S. Marchand (2)  
*Hydrocina* Scheuer (1)  
*Hymenobolus* Durieu & Mont. (3)  
*Hyphoscypha* Velen. (1)  
*Hysteronaevia* Nannf. (12)  
*Hysteropezizella* Hohn. (26)  
*Hysterostegiella* Hohn. (10)  
*Infundichalara* Reblova & W. Gams (2)  
*Involucroscypha* Raitv. (10)  
*Jacobsonia* Boedijn (1)  
*Korfia* J. Reid & Cain (1)  
*Lareunionomyces* Crous & M.J. Wingf. (2)  
*Larissia* Raitv. (1)  
*Lasseria* Dennis (1)  
*Lemalis* Fr. (3)  
*Libartania* Nag Raj (2)  
*Livia* Velen. (1)  
*Masseea* Sacc. (4)  
*Melanopeziza* Velen. (1)  
*Merodontis* Clem. (1)  
*Microdiscus* Sacc. (1)  
*Mitrulinia* Spooner (1)  
*Monochaetiellopsis* B. Sutton & DiCosmo (2)  
*Mycosphaerangium* Verkley (3)

*Obconicum* Velen. (2)  
*Obscurodiscus* Raitv. (1)  
*Orbiliopsis* (Sacc. & D. Sacc.) Syd. & P. Syd. (2)  
*Otwaya* G. Beaton (12)  
*Pachydisca* Boud. (32)\*  
*Parencoelia* Petr. (4)  
*Patellariopsis* Dennis (5)  
*Patinellaria* H. Karst. (1)  
*Peltigeromyces* Möller (3)  
*Pestalopezia* Seaver (3)  
*Pezolepis* Syd. (2)  
*Pezomela* Syd. (1)  
*Phacidiella* P. Karst. (1)  
*Phaeofabraea* Rehm (1)  
*Phaeopyxis* Rambold & Triebel (1)  
*Phragmonaevia* Rehm (16)\*  
*Piceomphale* Svrček (1)  
*Pleoscutula* Vou. (3)  
*Podophacidium* Niessl (2)  
*Polydesmia* Boud. (7)  
*Polyphilus* D.G. Knapp, Ashrafi, W. Maier & Kovács (2)  
*Potridiscus* Dobbeler & Triebel (1)  
*Pseudohelotium* Fuckel (50)  
*Pseudolachnum* Velen. (1)  
*Pseudomitrla* Gamundi (1)  
*Pseudopeltis* L. Holm & K. Holm (1)  
*Pseudotryblidium* Rehm (1)  
*Psilophana* Syd. (1)  
*Pteromyces* E. Bommer, M. Rousseau & Sacc. (1)  
*Pubigera* Baral, Gminder & Svrček (1)  
*Radotinea* E. Bommer, M. Rousseau & Sacc. (1)  
*Rhexocercosporidium* U. Braun (2)  
*Rhizocladospodium* Crous & U. Braun (1)  
*Rhizothyrium* Naumov (1)  
*Rommelaarsia* Baral & Haelew. (1)  
*Roseodiscus* Baral (4)  
*Sageria* A. Funk (1)  
*Sambucina* Velen. (1)  
*Sarcomyces* Masee (1)  
*Sclerocrana* Samuels & L.M. Kohn (4)  
*Scutulopsis* Velen. (1)  
*Soosiella* Hujšlova & M. Kolarik (1)  
*Sorokina* Sacc. (1)  
*Sorokinella* J. Frohl. & K.D. Hyde (2)  
*Spirosphaera* Beverw. (8)  
*Stamnaria* Fuckel (7)  
*Stilbopeziza* Speg. (1)  
*Strossmayeria* Schulzer (20)  
*Tetracladium* De Wild. (10)  
*Thegonia* B. Sutton (6)  
*Themisia* Velen. (8)  
*Tovariella* Syd. (1)



*Trichohelotium* Killerm. (2)  
*Triposporium* Corda (14)  
*Unguicularia* Hohn. (7)\*  
*Urceolella* Boud. (44)  
*Vandijckella* Sand.-Den. (1)  
*Waltonia* Saho (1)  
*Woodiella* Sacc. & P. Syd. (3)  
*Xeromedulla* Korf & W.Y. Zhuang (3)  
*Zugazaea* Korf, Iturr. & Lizoñ (1)

***Lahmiales*** O.E. Erikss.  
***Lahmiaceae*** O.E. Erikss.  
*Lahmia* Korb. (2)

***Lauriomycetales*** Hern.-Restr., R.F. Castañeda & Guarro  
***Lauriomycetaceae*** Hern.-Restr., R.F. Castañeda & Guarro  
*Lauriomyces* R.F. Castaneda (11)

***Leotiales*** Korf & Lizoñ  
***Cochlearomycetaceae*** Crous  
*Cochlearomyces* Crous (1)\*  
*Satchmopsis* B. Sutton & Hodges (4)

***Leotiaceae*** Corda  
*Halenospora* E.B.G. Jones (1)  
*Leotia* Pers. (23)  
*Microglossum* Gillet (26)  
*Miniancora* Marvanova & Barl. (1)

***Mniaeciaceae*** Baral\*  
*Epithamnia* Zhurb. (7)\*  
*Mniaecia* Boud. (3)

***Tympanidaceae*** Baral & Quijada  
*Claussenomyces* Kirschst. (15)\*  
*Collophorina* Damm & Crous (7)  
*Durandiella* Seaver (15)  
*Gelatinosporium* Peck (12)\*  
*Myriodiscus* Boedijn (2)  
*Pragmopora* A. Massal. (8)  
*Tympanis* Fr. (64)

***Leotiales* genera incertae sedis**  
*Aotearomyces* P.R. Johnst., J.A. Cooper & Quijada (1)\*  
*Alatospora* Ingold (4)  
*Flagellospora* Ingold (6)\*

***Lichinodiales*** M. Prieto, M. Schultz, Olariaga & Wedin  
***Lichinodiaceae*** M. Prieto, M. Schultz, Olariaga & Wedin  
*Lichinodium* Nyl. (4)\*

***Marthamycetales*** R. Johnst. & Baral\*

***Marthamycetaceae*** Baral, Lantz, Hustad & Minter

- Cyclaneusma* DiCosmo, Peredo & Minter (2)
- Marthamyces* Minter (18)
- Mellitiosporiella* Hohn. (3)
- Mellitiosporium* Corda (10)
- Naemacyclus* Fuckel (13)
- Phragmiticola* Sherwood (1)
- Propolina* Sacc. (1)
- Propolis* (Fr.) Corda (8)
- Ramomarthamyces* P.R. Johnst. (4)\*

***Medeolariales*** Korf

***Medeolariaceae*** Korf

- Medeolaria* Thaxt (1)

***Micraspidales*** Quijada & Tanney\*

***Micraspidaceae*** Quijada & Tanney

- Micraspis* Darker (3)

***Phacidiales*** C.E. Bessey\*

***Helicogoniaceae*** Baral

- Calloriopsis* Syd. & P. Syd. (1)
- Eleutheromycella* Hohn. (1)
- Eleutheromyces* Fuckel (2)
- Gelatinipulvinella* Hosoya & Y. Otani (1)
- Gelatinopsis* Rambold & Triebe (8)
- Geltingia* Alstrup & D. Hawksw. (1)
- Helicogonium* W.L. White (19)

***Phacidiaceae*** Fr.

- Allantophomopsiella* Crous (1)
- Allantophomopsis* Petr. (4)
- Bulgaria* Fr. (12)
- Darkera* H.S. Whitney, J. Reid & Piroz. (5)
- Lophophacidium* Lagerb. (2)
- Phacidiopycnis* Potebnia (6)
- Phacidium* Fr. (40)
- Pseudophacidium* P. Karst. (11)
- Starbaeckia* Rehm ex Starback (1)

***Phacidiales*** genus *incertae sedis*

- Coma* Nag Raj & W.B. Kendr. (1)

***Rhytismatales*** M.E. Barr ex Minter

***Cudoniaceae*** P.F. Cannon

- Cudonia* Fr. (20)
- Spathularia* Pers. (10)

***Rhytismataceae*** Chevall.

- Bifusella* Hohn. (9)
- Bifusepta* Darker (1)

*Bivallum* P.R. Johnst. (7)  
*Canavirgella* W. Merr, Wenner & Dreisbach (1)  
*Cavaraella* Speg. (1)  
*Ceratophacidium* J. Reid & Piroz. (1)  
*Cerion* Masee (2)  
*Coccomyces* De Not. (119)  
*Colpoma* Wallr. (14)  
*Criella* (Sacc.) Sacc. & P. Syd. (2)  
*Cryptomyces* Grev. (3)  
*Davisomycella* Darker (11)  
*Discocainia* J. Reid & A. Funk (4)  
*Duplicaria* Fuckel (1)  
*Duplicariella* B. Erikss. (1)  
*Elytroderma* Darker (3)  
*Gelineostroma* H.J. Swart (2)  
*Heufleria* Auersw. (2)\*  
*Hypoderma* De Not. (56)  
*Hypodermella* Tubeuf (3)  
*Hypodermellina* Höhn. (1)  
*Hypohelion* P.R. Johnst. (4)  
*Lasiostictella* Sherwood (1)  
*Lirula* Darker (12)  
*Lophodermella* Hohn. (9)  
*Lophodermium* Chevall. (185)  
*Macroderma* Hohn. (2)  
*Meloderma* Darker (5)  
*Moutoniella* Penz. & Sacc. (1)  
*Mycomelanea* Velen. (1)  
*Myriophacidium* Sherwood (6)  
*Nematococcomyces* C.L. Hou, M. Piepenbr. & Oberw. (2)  
*Neococcomyces* Y.R. Lin, C.T. Xiang & Z.Z. Li (3)  
*Neophacidium* Petr. (2)  
*Nothorhytisma* Minter, P.F. Cannon, A.I. Romero & Peredo (1)  
*Parvacoccum* R.S. Hunt & A. Funk (1)  
*Phaeophacidium* P. Henn. & Lindau (3)  
*Ploioderma* Darker. (8)  
*Propolidium* Sacc. (15)  
*Pseudographis* Nyl. (10)\*  
*Pseudorhytisma* Juel (1)  
*Pureke* P.R. Johnst. (1)  
*Rhytisma* Fr. (30)  
*Soleella* Darker (7)  
*Sporomega* Corda (1)  
*Terriera* B. Erikss. (34)  
*Therrya* Sacc. (7)  
*Tryblidiopsis* P. Karst. (5)  
*Virgella* Darker (1)  
*Vladracula* P.F. Cannon, Minter & Kamal (2)  
*Xyloschizon* Syd. (2)  
*Zeus* Minter & Diamandis (1)

***Tribliaceae*** Rehm\*

*Huangshania* O.E. Erikss. (2)  
*Triblidium* Rebent. (13)

***Rhytismatales* genera incertae sedis**

*Apiodiscus* Petr. (1)  
*Bonanseja* Sacc. (1)  
*Didymascus* Sacc. (2)  
*Haplophyse* Theiss. (1)  
*Irydyonia* Racib. (1)  
*Laquearia* Fr. (2)  
*Mycosymbiaces* J.L. Frank (1)  
*Nymanomyces* P. Henn. (2)  
*Pseudotrochila* Hohn. (1)

***Thelebolales* P.F. Cannon**

***Pseudeurotiaceae* Malloch & Cain**

*Connersia* Malloch (1)  
*Geomyces* Traaen (9)  
*Gymnostellatospora* Udagawa, Uchiy. & Kamiya (6)\*  
*Leuconeurospora* Malloch & Cain (2)  
*Neelakesa* Udaiyan & Hosag. (3)  
*Pleuroascus* Masee & E.S. Salmon (3)  
*Pseudeurotium* J.F.H. Beyma (8)  
*Pseudogymnoascus* Raillo (12)\*

***Thelebolaceae* (Brumm.) Eckblad**

*Antarctomyces* Stchigel & Guarro (2)  
*Ascophanus* Boud. (56)  
*Ascozonus* (Renny) E.C. Hansen (9)  
*Caccobius* Kimbr. (1)  
*Cleistothelebolus* Malloch & Cain (1)  
*Coprobolus* Cain & Kimbr. (1)  
*Leptokalpion* Brumm. (1)  
*Pseudascozonus* Brumm. (1)  
*Ramgea* Brumm. (2)  
*Thelebolus* Tode (16)

***Leotiomycetes* genera incertae sedis**

*Adelodiscus* Syd. (1)  
*Bagnisimitrula* S. Imai (1)  
*Callerascus* Whitton, K.D. Hyde & McKenzie (1)  
*Deltopyxis* Baral & G. Marson (1)  
*Epicladonia* D. Hawksw. (5)  
*Gorgomyces* M. Gonczol & Revay (2)  
*Helicocentralis* Sri-indr., Chuaseehar., Boonyuen, K. Yamag., Suetrong & C.K.M. Tsui (1)  
*Helotiella* Sacc. (17)  
*Holwaya* Sacc. (2)  
*Leohumicola* N.L. Nick. (7)  
*Melanormia* Korb. (1)  
*Metapezizella* Petr. (1)  
*Ocotomyces* H.C. Evans & Minter (1)  
*Patinella* Sacc. (25)\*

*Phyllopezis* Petr. (1)  
*Physmatomyces* Rehm (1)  
*Polydiscina* Syd. (1)  
*Psilothecium* Clem. (1)  
*Schnablia* Sacc. & P. Syd. (1)  
*Trullula* Ces. (5)

***Lichinomycetes*** V. Reeb, Lutzoni & Cl. Roux

***Lichinales*** Henssen & Büdel

***Gloeoheppiaceae*** Henssen

*Gloeoheppia* Gyeln. (5)  
*Gudelia* Henssen (1)  
*Pseudopeltula* Henssen (1)

***Lichinaceae*** Nyl.

*Anema* Nyl. ex Forssell (21)  
*Calotrichopsis* Vain. (4)  
*Corynecystis* Brusse (1)  
*Cryptothele* Th. Fr. (7)  
*Digitothyrea* P. Moreno & Egea (3)  
*Edwardiella* Henssen (1)  
*Ephebe* Fr. (13)  
*Finkia* Vain. (1)  
*Gyrocollema* Vain. (2)  
*Heppia* Nägeli (4)  
*Jenmania* W. Wächt. (2)  
*Lecidopyrenopsis* Vain. (1)  
*Lemmopsis* (Vain.) Zahlbr. (3)  
*Lempholemma* Körb. (35)  
*Leprocollema* Vain. (3)  
*Lichina* C. Agardh (9)  
*Lichinella* Nyl. (30)  
*Mawsonia* C.W. Dodge (1)  
*Metamelanea* Henssen (3)  
*Paulia* Feé (10)  
*Peccania* A. Massal. ex Arnold (3)  
*Phloeopeccania* J. Steiner (4)  
*Phylliscidiopsis* Sambo (1)  
*Phylliscidium* Forssell (1)  
*Phyllisciella* Henssen & Büdel (3)  
*Phylliscum* Nyl. (8)  
*Porocyphus* Körb. (8)  
*Pseudarctomia* Gyeln. (1)  
*Pseudoheppia* Zahlbr. (1)  
*Pseudopaulia* M. Schultz (1)  
*Psorotichia* A. Massal. (50)  
*Pterygiopsis* Vain. (17)  
*Pyrenocarpon* Trevis. (1)  
*Pyrenopsis* Nyl. (40)  
*Solorinaria* (Vain.) Gyeln. (1)  
*Stromatella* Henssen (1)  
*Synalissa* Fr. (30)

*Thallinocarpon* A.E. Dahl (2)  
*Thelignya* A. Massal. (2)  
*Thermutis* Fr. (2)  
*Thermutopsis* Henssen (1)  
*Thyrea* A. Massal. (13)  
*Zahlbrucknerella* Herre (10)

***Peltulaceae*** Büdel

*Peltula* Nyl. (32)

***Orbiliomycetes*** O.E. Erikss. & Baral

***Orbiliales*** Baral, O.E. Erikss., G. Marson & E. Weber

***Orbiliaceae*** Nannf.

*Arthrobotrys* Corda (ca. 100+)  
*Dactylella* Grove (31)  
*Dactylellina* M. Morelet (= *Gamsylella* M. Scholler et al.) (26)  
*Drechslerella* Subram. (ca. 7)  
*Dwayaangam* Subram. (8)  
*Helicoon* Morgan (ca. 15)  
*Hyalorbilia* Baral & G. Marson (40)  
*Orbilia* Fr. (ca. 400)  
*Pseudotriporiconidium* Z.F. Yu & K.Q. Zhang (1)  
*Pseudorbilia* Y. Zhang, Z.F. Yu, Baral & K-Q Zhang (1)  
*Retiarius* D.L. Olivier (4)  
*Vermispora* Deighton & Piroz. (7)

***Orbiliales*** genus *incertae sedis*

*Microdochiella* Hern.-Restr. & Crous (1)

***Orbiliomycetes*** genus *incertae sedis*

*Mycoceros* D. Magyar & Z. Merényi (1)\*

***Pezizomycetes*** O.E. Erikss. & Winka

***Pezizales*** J. Schröt.

***Ascobolaceae*** Boud. ex Sacc.

*Ascobolus* Pers. (ca. 70)  
*Cleistoiodophanus* J.L. Bezerra & Kimbr. (1)  
*Cubonia* Sacc. (ca. 7)  
*Saccobolus* Boud. (33)  
*Thecotheus* Boud. (23)\*

***Ascodesmidaceae*** J. Schröt.

*Ascodesmis* Tiegh. (~10)  
*Cephaliphora* Thaxt. (2)\*  
*Chalazion* Dissing & Sivertsen (3)  
*Coprotiella* Jeng & J.C. Krug (1)  
*Dictyocoprotus* J.C. Krug & R.S. Khan (1)  
*Eleutherascus* Arx (4)  
*Lasiobolus* Sacc. (11)  
*Luciotrichus* R. Galán & Raitv. (1)  
*Ochotrichobolus* Kimbr. & Korf (1)  
*Trichobolus* (Sacc.) Kimbr. & Cain (6)

**Caloscyphaceae** Harmaja

*Caloscypha* Boud. (2)

**Chorioactidaceae** Pfister

*Chorioactis* Kupfer ex Eckblad (1)

*Desmazierella* Lib. (2)

*Neournula* Paden & Tylutki (2)

*Pseudosarcosoma* M. Carbone, Agnello & P. Alvarado (1)

*Trichaleurina* Rehm (3)

*Wolfina* Seaver ex Eckblad (2)

**Discinaceae** Benedix

*Discina* (Fr.) Fr. (20)

*Gymnohydnotrya* B.C. Zhang & Minter (3)

*Gyromitra* Fr. (25)

*Hydnotrya* Berk. & Broome (11)

*Pseudorhizina* Jacz. (3)

**Glaziellaceae** J.L. Gibson

*Glaziella* Berk. (1)

**Helvellaceae** Fr.

*Balsamia* Vittad. (21)

*Barssia* Gilkey (8)

*Helvella* L. (ca. 80)

*Underwoodia* Peck (2)

*Wynnella* Boud. (3)

**Kallistoskyphaceae** Ekanayaka, K.D. Hyde, Q. Zhao & E.B.G. Jones

*Kallistoskypha* Pfister, Agnello, Lantieri & LoBuglio (1)

**Karstenellaceae** Harmaja

*Karstenella* Harmaja (1)

**Morchellaceae** H.G.L. Reichenbach

*Disciotis* Boud. (3)

*Fischerula* Mattir. (2)

*Imaia* Trappe & Kovács (1)

*Kalapuya* M.J. Trappe, Trappe & Bonito (1)

*Leucangium* Quél. (1)

*Morchella* Dill. ex Pers. (~60)

*Verpa* Sw. (4)

**Pezizaceae** Dumort. (= *Carbomycetaceae* Trappe)

*Adelphella* Pfister, Matočec & I. Kušan (1)

*Amylascus* Trappe (1)

*Antrelloides* P.S. Catches. & D.E.A. Catches. (1)

*Aquapeziza* D.M. Hu, L. Cai & K.D. Hyde (1)

*Boudiera* Cooke (10)

*Calongea* Healy, Bonito & Trappe (1)\*

*Carbomyces* Gilkey (3)

*Cazia* Trappe (2)

*Delastria* Tul. & C. Tul. (6)  
*Elderia* McLennan (1)  
*Eremiomyces* Trappe & Kagan-Zur (3)  
*Galactinia* (Cooke) Boud. (ca. 5)  
*Hapsidomyces* J.C. Krug & Jeng (1)  
*Hydnobolites* Tul. & C. Tul. (ca. 6)  
*Hydnotryopsis* Gilkey (4)  
*Iodophanus* Korf (15)  
*Iodowynnea* Medel, Guzmán & S. Chacón (1)  
*Kalaharituber* Trappe & Kagan-Zur (1)  
*Lepidotia* Boud. (1)  
*Luteoamylascus* Cabero, P. Alvarado & G. Moreno (1)  
*Marcelleina* Brumm., Korf & Rifai (11)  
*Mattiolomyces* E. Fisch. (5)  
*Mycoclelandia* Trappe & G.W. Beaton (2)  
*Pachyella* Boud. (12)  
*Pachyphlodes* Zobel (ca. 10)\*  
*Peziza* Dill. ex Fr. (ca. 120)  
*Plicaria* Fuckel (10)  
*Plicariella* (Sacc.) Rehm (2)\*  
*Rhodopeziza* Hohmeyer & Moravec (1)  
*Ruhlandiella* P. Henn. (7)  
*Sarcopeziza* Loizides, Agnello & P. Alvarado (1)\*  
*Sarcosphaera* Auersw. (4)  
*Sphaerozone* Zobel (1)  
*Stouffera* Kovács & Trappe (1)  
*Temperantia* K. Hansen, Healy & Kovács (1)  
*Terfezia* (Tul. & C. Tul.) Tul. & C. Tul. (19)  
*Tirmania* Chatin (3)  
*Ulurua* Trappe, Claridge & Kovács (1)

***Pseudombrophilaceae*** Ekanayaka, K.D. Hyde, Q. Zhao & E.B.G. Jones

*Heydenia* Fresen. (3)  
*Lasiobolidium* Malloch & Cain (7)  
*Orbicula* Cooke (1)  
*Pseudombrophila* Boud. (37)

***Pulvinulaceae*** Ekanayaka, K.D. Hyde, Q. Zhao & E.B.G. Jones

*Lazuardia* Rifai (1)  
*Pseudoboubovia* U. Lindem., M. Vega, B. Perić & R. Tena (1)  
*Pulvinula* Boud. (~30)

***Pyronemataceae*** Corda (= *Otideaceae* Eckblad)

*Acervus* Kanouse (9)  
*Aleuria* Fuckel (ca. 10)  
*Aleurina* Masee (ca. 10)  
*Anthracobia* Boud. (ca. 10)  
*Arpinia* Berthet (4)  
*Ascosparassis* Kobayasi (1)  
*Byssonectria* P. Karst. (7)\*  
*Chaetothiersia* B.A. Perry & Pfister (1)  
*Cheilymenia* Boud. (67)



*Cupulina* Dougloud, Van Vooren & M. Vega (2)  
*Diehliomyces* Gilkey (1)  
*Eoaleurina* Korf & W.Y. Zhuang (1)  
*Galeoscypha* Svrček & J. Moravec (1)  
*Genabea* Tul. & C. Tul. (4)  
*Genea* Vittad. (ca. 40)  
*Geneosperma* Rifai (2)  
*Geopora* Harkn. (ca. 20)  
*Gilkeya* M.E. Sm., Trappe & Rizzo (1)  
*Hoffmannoscypha* Stielow, Göker & Klenk (1)\*  
*Humaria* Fuckel (ca. 10)  
*Jafnea* Korf (2)  
*Lamprospora* De Not. (ca. 50)  
*Lasiocupulina* Van Vooren & M. Vega (1)  
*Lathraeodiscus* Dissing & Sivertsen (1)  
*Lotinia* Pérez-Butrón Fern.-Vic. & P. Alvarado (1)\*  
*Melastiza* Boud. (ca. 10)  
*Micronematobotrys* Xiang Sun & L.D. Guo (1)  
*Miladina* Svrček (1)  
*Monascella* Guarro & Arx (1)  
*Myrmecocystis* Harkn. (7)\*  
*Neottiella* (Cooke) Sacc. (ca. 5)  
*Octospora* Hedw. (ca. 50)  
*Octosporopsis* U. Lindem. & M. Vega (2)  
*Otidea* (Pers.) Bonord. (ca. 52)  
*Oviascoma* Y.J. Yao & Spooner (1)  
*Parascutellinia* Svrček (6)  
*Paratrifarina* Van Vooren, U. Lindemann, M. Vega, Ribes, Illescas & Matočec (1)  
*Paratrifophaea* Trigaux (5)  
*Petchiomyces* E. Fisch. & Mattir. (1)  
*Picoa* Vittad. (2)\*  
*Planamyces* Crous & Decock (1)  
*Pseudaleuria* Lusk (2)  
*Pseudotrifarina* Van Vooren, Tello & M. Vega (3)  
*Pyronema* Carus (3)  
*Pyropyxis* Egger (1)  
*Ramsbottomia* W.D. Buckley (3)  
*Rhizoblepharia* Rifai (2)  
*Scutellinia* (Cooke) Lambotte (70)  
*Selenaspora* R. Heim & Le Gal (1)  
*Sepultariella* Van Vooren, U. Lindemann & Healy (2)\*  
*Smardaea* Svrček (9)  
*Smarodsia* Raitv. & Vimba (1)  
*Sowerbyella* Nannf. (17)  
*Sphaerosporella* (Svrček) Svrček & Kubička (3)  
*Sphaerosporium* Schwein. *sensu stricto* (1)\*  
*Spooneromyces* T. Schumach. & J. Moravec (5)  
*Trifarina* Eckblad (= *Ascorhizoctonia* Chin S. Yang & Korf) (12)  
*Trifophaea* Boud. (26)  
*Trifophaeopsis* Korf & Erb (4)  
*Warcupia* Paden & J.V. Cameron (1)  
*Wenylingia* Zheng Wang & Pfister (1)

*Wilcoxina* Chin S. Yang & Korf (5)

***Rhizinaceae*** Bonord.

*Phymatotrichopsis* Hennebert (1)

*Psilopezia* Berk. (7)

*Rhizina* Fr. (1)

***Sarcoscyphaceae*** LeGal ex Eckblad

*Aurophora* Rifai (1)

*Cookeina* Kuntze (11)

*Geodina* Denison (1)

*Komposocypha* Pfister (4)

*Microstoma* Bernstein (7)

*Nanoscypha* Denison (8)

*Phillipsia* Berk. (~20)

*Pithya* Fuckel (2)

*Pseudopithyella* Seaver (2)

*Sarcoscypha* (Fr.) Boud. (18)

*Thindia* Korf & Waraitch (1)

*Wynnea* Berk. & M.A. Curtis (7)

***Sarcosomataceae*** Kobayasi

*Conoplea* Pers. (11)

*Donadinia* Bellem. & Mel.-Howell (5)

*Galiella* Nannf. & Korf (9)

*Korfiella* D.C. Pant & V.P. Tewari (1)

*Plectania* Fuckel (ca. 20)

*Pseudoplectania* Fuckel (4)

*Sarcosoma* Casp. (5)

*Strumella* Fr. (8)

*Urnula* Fr. (9)

***Strobiloscyphaceae*** Ekanayaka, K.D. Hyde, Q. Zhao & E.B.G. Jones

*Strobiloscypha* N.S. Weber & Denison (2)

***Tarzettaceae*** Ekanayaka, K.D. Hyde, Q. Zhao & E.B.G. Jones

*Densocarpa* Gilkey (2)\*

*Geopyxis* (Pers.) Sacc. (7)

*Hydnocystis* Tul. (= *Stephensia* Tul. & C. Tul.) (5)\*

*Hypotarzetta* Donadini (1)

*Paurocotylis* Berk. (4)

*Tarzetta* (Cooke) Lambotte (ca. 10)

***Tuberaceae*** Dumort.

*Choiromyces* Vittad. (5)

*Dingleya* Trappe (6)

*Labyrinthomyces* Boedijn (1)

*Nothojafnea* Rifai (2)

*Paradoxa* Mattir. (2)

*Reddellomyces* Trappe, Castellano & Malajczuk (4)

*Tuber* P. Micheli ex F.H. Wigg. (ca. 120)

***Pezizales* genera incertae sedis**

- Aparaphysaria* Speg. (1)
- Ascocalathium* Eidam ex J. Schröt. (1)
- Boubovia* Svrček (5)\*
- Boudierella* Sacc. (1)
- Cidaris* Fr. (1)
- Coprotus* Korf ex Korf & Kimbr. (33)\*
- Dennisiopsis* Subram. & Chandras. (2)
- Filicupula* Y.J. Yao & Spooner (1)
- Heydenia* Fresen.
- Hiemsia* Svrček (2)
- Leucoscypha* Boud (4)
- Microeurotium* Ghatak (1)
- Moravecia* Benkert, Caillet & Moyne (2)
- Mycoarctium* K.P. Jain & Cain (2)
- Mycogalopsis* Gjurašin (1)
- Octosporella* Döbbeler (9)
- Orcadia* G.K. Sutherl. (1)
- Sphaerosoma* Klotzsch (3)

***Sordariomycetes* O.E. Erikss. & Winka**

***Diaporthomycetidae* Senan., Maharachch. & K.D. Hyde**

***Annulatascales* M.J. D'souza, Maharachch. & K.D. Hyde**

***Annulatasceae* S.W. Wong, K.D. Hyde & E.B.G. Jones**

- Annulatasceus* K.D. Hyde (18)
- Annulismagnus* J. Campb. & Shearer (1)
- Aqualignicola* Ranghoo, C.K.M. Tsui & K.D. Hyde (2)
- Ascitendus* J. Campb. & Shearer (2)
- Ayria* Fryar & K.D. Hyde (2)
- Cataractispora* K.D. Hyde, S.W. Wong & E.B.G. Jones (5)
- Chaetorostrum* Zelski, Raja, A.N. Mill. & Shearer (1)
- Longicollum* Zelski, F.R. Barbosa, Raja, A.N. Mill. & Shearer (1)
- Submersisphaeria* K.D. Hyde (5)
- Vertexicola* K.D. Hyde, Ranghoo & S.W. Wong (3)

***Annulatascales* genus incertae sedis**

- Clohiesia* K.D. Hyde (3)

***Atractosporales* H. Zhang, K.D. Hyde & Maharachch.**

***Atractosporaceae* H. Zhang, K.D. Hyde & Maharachch.**

- Atractospora* Réblová & J. Fourn. (5)
- Rubellisphaeria* Réblová & J. Fourn. (1)

***Conlariaceae* H. Zhang, K.D. Hyde & Maharachch.**

- Conlarium* F. Liu & L. Cai (3)
- Riomyces* A. Ferrer, A.N. Mill., Sarmiento & Shearer (1)

***Pseudoproboscisporaceae* H. Zhang, K.D. Hyde & Maharachch.**

- Diluviicola* K.D. Hyde, S.W. Wong & E.B.G. Jones (2)
- Pseudoproboscispora* Punith. (3)

***Calosphaeriales* M.E. Barr**

**Calosphaeriaceae** Munk

*Calosphaeria* Tul. & C Tul. (114)

*Flabellascus* Réblová (1)

*Jattaea* Berl (27)

*Togniniella* Réblová, L. Mostert, W. Gams & Crous (1)

**Pleurostomataceae** Réblová, L. Mostert, W. Gams & Crous

*Pleurostoma* Tul. & C. Tul. (7)

**Calosphaeriales** genera *incertae sedis*

*Calosphaeriopsis* Petr. (1)

*Enchnoa* Fr. (21)

*Kacosphaeria* Speg. (1)

*Sulcatistroma* A.W. Ramaley (1)

**Diaporthales** Nannf.

**Apiosporopsidaceae** Senan., Maharachch. & K.D. Hyde

*Apiosporopsis* (Traverso) Mariani. (3)

**Apharknessiaceae** Senan., Maharachch. & K.D. Hyde

*Apharknessia* Crous & S.J. Lee (3)

*Lasmenia* Speg. (5)

**Asterosporiaceae** Senan., Maharachch. & K.D. Hyde

*Asterosporium* Kunze (5)

**Auratiopycnidiellaceae** Senan., Maharachch. & K.D. Hyde

*Auratiopycnidiella* Crous & Summerell (1)

**Coryneaceae** Corda (=Pseudovalsaceae M.E. Barr)

*Coryneum* Nees (30)

**Cryphonectriaceae** Gryzenh. & M.J. Wingf.

*Amphilogia* Gryzenh., H.F. Glen & M.J. Wingf. (2)

*Aurantioportha* G. Beier & R.A. Blanchette (1)

*Aurantiosacculus* Dyko & B. Sutton (3)

*Aurapex* Gryzenh. & M.J. Wingf. (1)

*Aurifilum* Begoude, Gryzenh. & Jol. Roux (1)

*Capillaureum* M.E.S. Oliveira (1)

*Celoportha* Nakab., Gryzenh., Jol. Roux & M.J. Wingf. (2)

*Chromendothia* Lar.N. Vassiljeva (2)

*Chrysofolia* Crous & M.J. Wingf. (1)

*Chrysomorbus* S.F. Chen (1)

*Chrysoportha* Gryzenh. & M.J. Wingf. (9)

*Corticimorbus* S.F. Chen & M.J. Wingf. (1)

*Cryphonectria* (Sacc.) Sacc. & D. Sacc. (1)

*Cryptometrion* Gryzenh. & M.J. Wingf. (1)

*Diversimorbus* S.F. Chen & J. Roux (1)

*Endothia* Fr. (2)

*Eriocamporesia* R.H. Perera, Samarak. & K.D. Hyde (1)

*Foliocryphia* Cheew. & Crous (2)

*Holocryphia* Gryzenh. & M.J. Wingf. (1)

*Immersiportia* S.F. Chen, M.J. Wingf. & Jol. Roux (1)  
*Latruncellus* M. Verm., Gryzenh. & Jol. Roux (1)  
*Luteocirrhus* C.F. Crane & T.I. Burgess (1)  
*Mastigosporella* Höhn. (= *Wuestneiopsis* J. Reid & Dowsett) (5)  
*Microthia* Gryzenh. & M.J. Wingf. (2)  
*Myrtonectria* Marinc., D.B. Ali & J. Roux (1)  
*Rostraureum* Gryzenh. & M.J. Wingf. (2)  
*Ursicollum* Gryzenh. & M.J. Wingf. (1)  
*Wuestneia* Auersw. ex Fuckel (13)

**Cytosporaceae** Fr. (= *Valsaceae* Tul. & C. Tul.)

*Cryptascoma* Ananthap. (2)  
*Cytospora* Ehrenb. (123)  
*Pachytrype* Berl. ex M.E. Barr, J.D. Rogers & Y.M. Ju (1)  
*Paravalsa* Ananthap. (1)  
*Waydora* B. Sutton (1)  
*Xenotypa* Petr. (1)

**Diaporthaceae** Höhn. ex Wehm.

*Apioporthella* Petr. (1)  
*Apiosphaeria* Höhn. (5)  
*Chaetoconis* Clem. (1)  
*Chiangraiomycetes* Senan. & K.D. Hyde (1)  
*Diaportha* Nitschke (= *Allantoportha* Petr.; = *Clypeoporthella* Petr.) (173)  
*Hyaliappendispora* Senan., Camporesi & K.D. Hyde (1)  
*Leucodiaportha* M.E. Barr & Lar.N. Vassiljeva (1)  
*Massariothea* Syd. (10)  
*Mazzantia* Mont. (4)  
*Ophiodiaportha* Y.M. Ju, H.M. Hsieh, C.H. Fu, Chi Y. Chen & T.T. Chang (1)  
*Paradiaportha* Senan., Camporesi & K.D. Hyde (1)  
*Phaeocystroma* Petr. (4)  
*Phaeodiaportha* Petr. (2)  
*Pustulomyces* D.Q. Dai, Bhat & K.D. Hyde (1)  
*Stenocarpella* Syd. & P. Syd. (2)

**Diaporthosporellaceae** C.M. Tian & Q. Yang\*

*Diaporthosporella* C.M. Tian & Q. Yang (1)

**Diaporthostomataceae** X.L. Fan & C.M. Tian\*

*Diaporthostoma* X.L. Fan & C.M. Tian (1)\*

**Dwiroopaceae** K.V. Xavier, A.N. KC, J.Z. Groenew., Vallad & Crous

*Dwiroopa* Subram. & Muthumary (2)

**Erythroglloeaceae** Senan., Maharachch. & K.D. Hyde

*Chrysocrypta* Crous & Summerell (1)  
*Dendrostoma* X.L. Fan & C.M. Tian (4)\*  
*Disculoides* Crous, Pascoe, I.J. Porter & Jacq. Edwards (2)  
*Erythroglloeum* Petr. (2)

**Gnomoniaceae** G. Winter

*Alnecium* Voglmayr & Jaklitsch (2)

*Ambarignomonina* Sogonov (1)  
*Amphiporthe* Petr. (= *Amphicytostroma* Petr.) (2)  
*Anisomyces* Theiss. & Syd. (5)  
*Apiognomonina* Höhn. (= *Discula* Sacc.) (28)  
*Apioplagiostoma* M.E. Barr (3)  
*Asteroma* DC. (54)  
*Bagcheea* E. Müll. & R. Menon (2)  
*Chadefaudiomyces* Kamat (1)  
*Clypeoporthe* Höhn. (5)  
*Cryptosporella* Sacc. (ca. 26)  
*Dictyoporthe* Petr. (4)  
*Diplacella* Syd. (2)  
*Ditopella* De Not. (16)  
*Ditopellopsis* J. Reid & C. Booth (4)  
*Flavignomonina* C.M. Tian, Qin Yang & N. Jiang (1)\*  
*Gloeosporidina* Petr. (6)  
*Gnomonia* Ces. & De Not. (ca. 70)  
*Gnomoniella* Sacc. (= *Cylindrosporella* Höhn.) (ca. 70)  
*Gnomoniopsis* Berl. (25)  
*Maculatipalma* J. Fröhlich & K.D. Hyde (1)  
*Mamianiella* Höhn. (= *Anisogramma* Theiss. & Syd.; = *Mamiania* Ces & De Not.) (2)  
*Marsupiomycetes* Senan. & K.D. Hyde (2)  
*Millerburtonia* Cif. (1)  
*Occultocarpon* L.C. Mejía & Zhu L. Yang (1)  
*Ophiognomonina* (Sacc.) Sacc. (49)  
*Phragmoporthe* Petr. (1)  
*Phylloporthe* Syd. (2)  
*Plagiostoma* Fuckel (52)  
*Pleuroceras* Riess. (12)  
*Sirococcus* Preuss (5)  
*Spataporthe* Bronson, Klymiuk, Stockey & Tomescu (1)  
*Tenuignomonina* Minosh., D.M. Walker & Hirooka (1)  
*Uleoporthe* Petr. (1)  
*Valsalnicola* D.M. Walker & Rossman (1)  
*Vismaya* V.V. Sarma & K.D. Hyde (1)

***Harknessiaceae*** Crous

*Harknessia* Cooke (ca. 50)  
*Mebarria* J. Reid & C. Booth (1)

***Juglanconidaceae*** Voglmayr & Jaklitsch (= *Melanosporellaceae* C.M. Tian & Z. Du)

*Juglanconis* Voglmayr & Jaklitsch (4)

***Lamproconiaceae*** Norph., T.C. Wen & K.D. Hyde

*Hercospora* Fr. (= *Rabenhorstia* Fr.) (1)  
*Lamproconium* (Grove) Grove (1)

***Macrohilaceae*** Crous

*Macrohilum* H.J. Swart (1)

***Melanconidaceae*** G. Winter

*Melanconis* Tul. & C. Tul. (1)

**Melanconiellaceae** Senan., Maharachch. & K.D. Hyde

- Dicarpella* Syd. & P. Syd. (7)
- Greeneria* Scribn. & Viala (3)
- Massariovalsa* Sacc. (= *Melanconiopsis* Ellis & Everh.) (4)
- Melanconiella* Sacc. (2)
- Microascospora* Senan. & K.D. Hyde (2)
- Septomelanconiella* Samarak. & K.D. Hyde (1)\*
- Sheathospora* X.L. Fan (1)\*
- Sphaeronaemella* P. Karst. *sensu lato* (10)

**Neomelanconiellaceae** Crous

- Neomelanconiella* Crous (1)\*

**Phaeoappendicosporaceae** Crous & M.J. Wingf.

- Phaeoappendicospora* Senan., Q.R. Li & K.D. Hyde (1)
- Neophaeoappendicospora* Crous & M.J. Wingf. (1)

**Prosopidicolaceae** Senan. & K.D. Hyde

- Prosopidicola* Crous & C.L. Lennox (2)

**Pseudomelanconidaceae** C.M. Tian & X.L. Fan\*

- Pseudomelanconis* C.M. Tian & X.L. Fan (1)\*
- Neopseudomelanconis* C.M. Tian & N. Jiang (1)

**Pseudoplagiostomataceae** Cheew., M.J. Wingf. & Crous

- Pseudoplagiostoma* Cheew., M.J. Wingf. & Crous (7)

**Schizoparmaceae** Rossman

- Coniella* Höhn. (34)

**Stilbosporaceae** Link

- Crinitospora* B. Sutton & Alcorn (1)
- Natarajania* Pratibha & Bhat (1)
- Stegosporium* Corda (8)
- Stilbospora* Pers. (20)

**Sydowiellaceae** Lar.N. Vassiljeva

- Alorbis* Senan. & K.D. Hyde (1)
- Breviappendix* Senan. & K.D. Hyde (3)
- Cainiella* E. Müll. (2)
- Calosporella* J. Schröt (1)
- Caudospora* Starbäck (2)
- Chapeckia* M.E. Barr (2)
- Hapalocystis* Auersw. ex Fuckel (9)
- Italiomyces* Senan., Camporesi & K.D. Hyde (1)
- Lambro* Racib. (3)
- Paragnomonium* Senan. & K.D. Hyde (1)
- Ranulospora* Senan., Camporesi & K.D. Hyde (1)
- Rossmania* Lar.N. Vassiljeva (2)
- Sillia* P. Karst. (9)
- Sydowiella* Petr. (11)
- Tenuiappendicula* Senan., Camporesi & K.D. Hyde (1)

*Tortilispora* Senan. & K.D. Hyde (3)

***Synnemasporellaceae*** X.L. Fan & J.D.P. Bezerra\*

*Synnemasporella* X.L. Fan & J.D.P. Bezerra (2)\*

***Tubakiaceae*** U. Braun, J.Z. Groenew. & Crous\*

*Apiognomonioides* U. Braun, J.Z. Groenew. & Crous (1)

*Involutscutellula* U. Braun & C. Nakash. (1)

*Oblongisporothyrium* U. Braun & C. Nakash. (1)

*Paratubakia* U. Braun & C. Nakash. (2)

*Racheliella* Crous & U. Braun (2)

*Saprothyrium* U. Braun, Crous & J.Z. Groenew. (1)

*Sphaerosporothyrium* U. Braun, Crous, O. Moreno-Rico & Marm. (1)

*Tubakia* B. Sutton (25)

***Diaporthales*** genera *incertae sedis*

*Ceratoporthes* Petr. (1)

*Cryptoleptosphaeria* Petr. (1)

*Cryptonectriella* (Höhn.) Weese (2)

*Cryptonectriopsis* (Höhn.) Weese (1)

*Cytomelanconis* Naumov (1)

*Diaporthella* Petr. (5)

*Diatrypoidiella* Manohar., Kunwar & D.K. Agarwa (1)

*Ditopellina* J. Reid & C. Booth (1)

*Durispora* K.D. Hyde (2)

*Exormatostoma* Gray (10 epithets in Index Fungorum 2020)

*Fremineavia* Nieuwl. (1)

*Gibellia* Sacc. (1)

*Gyrostroma* Naumov (3)

*Hyalorostratum* Raja & Shearer (1)

*Hypophloeda* K.D. Hyde & E.B.G. Jones (1)

*Hypospilina* (Sacc) Traverso (4)

*Kapooria* J. Reid & C. Booth (1)

*Keinstirschia* J. Reid & C. Booth (1)

*Kensinjinia* J. Reid & C. Booth (1)

*Lollipopaia* Inderb. (1)

*Macrodiaporthes* Petr. (1)

*Melanamphora* Lafl. (1)

*Phragmodiaporthes* Wehm. (3)

*Phruensis* Pinruan (1)

*Plagiophiale* Petr. (2)

*Plagiostigme* Syd. (1)

*Prostratus* Sivan., W.H. Hsieh & Chi Y. Chen (1)

*Pseudocryptosporella* J. Reid & C. Booth (1)

*Pseudothis* Theiss. & Syd. (12)

*Pseudovalsella* Höhn. (2)

*Savulescua* Petr. (1)

*Skottsbergiella* Petr. (1)

*Sphaerognomoniella* Naumov & Kusnezowa (1)

*Stioclettia* Dennis (1)

*Trematovalsa* Jacobesco (1)

*Wehmeyera* J. Reid & C. Booth (1)



***Distoseptisporales*** Z.L. Luo, K.D. Hyde & H.Y. Su  
***Distoseptisporaceae*** K.D. Hyde & McKenzie  
*Distoseptispora* K.D. Hyde, McKenzie & Maharachch. (18)

***Magnaporthales*** Thongk., Vijaykr. & K.D. Hyde  
***Ceratospaeriaceae*** Z.L. Luo, H.Y. Su & K.D. Hyde  
*Ceratospaeria* Niessl. (24)

***Magnaporthaceae*** P.F. Cannon

*Bifusisporella* R.M.F. Silva, R.J.V. Oliveira, J.D.P. Bezerra, Souza-Motta & G.A. Silva (1)\*  
*Budhanggurabania* P. Wong, Khemmuk & R.G. Shivas (1)  
*Buergenerula* Syd. (1)  
*Bussabanomyces* Klaubauf, M.-H. Lebrun & Crous (1)  
*Ceratospaerella* Huhndorf, Greif, Mugambi & A.N. Mill. (2)  
*Clasterosphaeria* Sivan. (2)  
*Clasterosporium* Schwein (41)  
*Clavatisporella* K.D. Hyde (1)  
*Falciphora* J. Luo & N. Zhang (1)  
*Falciphoriella* M. Hern.-Restr. & Crous (1)  
*Gaeumannomycella* M. Hern.-Restr. & Crous (2)  
*Gaeumannomyces* Arx & D.L. Olivier (20)  
*Herbampulla* Scheuer & Nogrsek (1)  
*Kohlmeyeriopsis* Klaubauf, M.-H. Lebrun & Crous (1)  
*Magnaporthiopsis* J. Luo & N. Zhang (7)  
*Muraeriata* Huhndorf, Greif, Mugambi & A.N. Mill. (2)  
*Nakataea* Hara (8)  
*Neogaeumannomyces* D.Q. Dai & K.D. Hyde (1)  
*Omnidemtus* P.F. Cannon & Alcorn (3)  
*Plagiosphaera* Petr. (1)\*  
*Pseudophialophora* J. Luo & N. Zhang (9)  
*Pyriculariopsis* M.B. Ellis (9)  
*Slopeiomyces* Klaubauf, M.-H. Lebrun & Crous (1)

***Ophioceraceae*** Klaubauf, E.G. LeBrun & Crous  
*Ophioceras* Sacc. (50)

***Pseudohalonectriaceae*** Hongsanan & K.D. Hyde  
*Pseudohalonectria* Minoura & T. Muroi (16)

***Pyriculariaceae*** Klaubauf, E.G. LeBrun & Crous  
*Bambusicularia* Klaubauf, M.-H. Lebrun & Crous (1)  
*Barretomyces* Klaubauf, M.-H. Lebrun & Crous (1)  
*Deightoniella* S. Hughes (20)  
*Macgarvieomyces* Klaubauf, M.-H. Lebrun & Crous (3)  
*Neocordana* Hern.-Rest. & Crous (6)  
*Neopyricularia* Klaubauf, M.-H. Lebrun & Crous (1)  
*Proxipyricularia* Klaubauf, M.-H. Lebrun & Crous (2)  
*Pseudopyricularia* Klaubauf, M.-H. Lebrun & Crous (7)  
*Pyricularia* Sacc. (84)  
*Pyriculariomyces* Y. Marín, M.J. Wingf. & Crous (1)  
*Xenopyricularia* Klaubauf, M.-H. Lebrun & Crous (1)

**Myrmecridiales** Crous

**Myrmecridiaceae** Crous

*Myrmecridium* Arzanlou, W. Gams & Crous (14)

*Neomyrmecridium* Crous (2)

**Xenodactylariaceae** Crous

*Xenodactylaria* Crous (1)\*

**Ophiostomatales** Benny & Kimbr.

**Kathistaceae** Malloch & M. Blackw.

*Kathistes* Malloch & M. Blackw. (3)

*Mattirolella* S. Colla (2)

*Termitariopsis* M. Blackw., Samson & Kimbr. (1)

**Ophiostomataceae** Nannf.

*Afroraffaele* C.C. Bateman, Y.T. Huang & D.R. Simmons (1)

*Aureovirg* J.A. van der Linde, Z.W. de Beer & Jol. Roux (1)

*Ceratocystiopsis* H.P. Upadhyay & W.B. Kendr. (5)

*Fragosphaeria* Shear (2)

*Graphilbum* H.P. Upadhyay & W.B. Kendr. (13)

*Hawksworthiomyces* Z.W. de Beer, Marinc. & M.J. Wingf. (4)

*Klasterskya* Petr. (3)

*Leptographium* Lagerb. & Melin (= *Grosmania* Gold.) (74)

*Ophiostoma* Syd. & P. Syd. (= *Hyalorhinocladiella* H.P. Upadhyay & W.B. Kendr.; =

*Pesotum* J.L. Crane & Schokn.) (134)

*Raffaelea* Arx & Hennebert (33)

*Sporothrix* Hektoen & C.F. Perkins (79)

*Spumatoria* Masee & E.S. Salmon (1)

*Subbaromyces* Hesselt. (2)

**Phomatosporales** Senan., Maharachch. & K.D. Hyde

**Phomatosporaceae** Senan. & K.D. Hyde

*Lanspora* K.D. Hyde & E.B.G. Jones (2)

*Phomatospora* Sacc. (ca. 100)

*Tenuimurus* Senan., Camporesi & K.D. Hyde (1)

**Sporidesmiales** Crous

**Sporidesmiaceae** Fr.

*Sporidesmium* Link (ca. 330)

**Tirisporellales** Suetrong, E.B.G. Jones & K.L. Pang

**Tirisporellaceae** Suetrong, E.B.G. Jones & K.L. Pang

*Bacusphaeria* Norlail., Alias & Suetrong (1)

*Thailandiomyces* Pinruan, Sakay., K.D. Hyde & E.B.G. Jones (1)

*Tirisporella* E.B.G. Jones, K.D. Hyde & Alias (1)

**Togniniales** Senan., Maharachch. & K.D. Hyde

**Togniniaceae** Réblová, L. Mostert, W. Gams & Crous

*Conidiotheca* Réblová & L. Mostert (1)

*Phaeoacremonium* W. Gams, Crous & M.J. Wingf. (65)

**Xenosporidiales** Hern.-Restr., J. Mena & Gené

**Xenospadicoidaceae** Hern.-Restr., J. Mena & Gené (= *Lentomitellaceae* H. Zhang, K.D. Hyde & Maharachch)\*

*Calyptosphaeria* Réblová & A.N. Mill. (4)

*Lentomitella* Höhn. (13)

*Neospadicoides* Z.L. Luo (3)

*Spadicoides* S. Hughes (= *Xenospadicoides* Hern.-Restr., J. Mena & Gené; *Pseudodiplococcium* Hern.-Restr., J. Mena & Gené) (45)\*

*Torrentispora* K.D. Hyde, W.H. Ho, E.B.G. Jones (= *Fusoidispora* Vijaykr., Jeewon & K.D. Hyde; = *Pseudoannulatasacus* Z.L. Luo, Maharachch. & K.D. Hyde) (9)\*

**Diaporthomycetidae** families *incertae sedis*

**Barbatosphaeriaceae** H. Zhang, K.D. Hyde & Maharachch.\*

*Barbatosphaeria* Réblová (9)

*Ceratostomella* Sacc. (18)

*Xylomelasma* Réblová (4)

**Papulosaceae** Winka & O.E. Erikss.

*Brunneospora* V.M. Ranghoo & K.D. Hyde (1)

*Fluminicola* S.W. Wong, K.D. Hyde & E.B.G. Jones (4)

*Papulosa* Kohlm & Volkm-Kohlm (1)

*Wongia* Khemmuk, Geering & R.G. Shivas (3)

**Rhamphoriaceae** Réblová\*

*Rhamphoria* Niessl (15)\*

*Rhamphoriopsis* Réblová & Gardiennet (1)\*

*Rhodoveronaea* Arzanlou, W. Gams & Crous (1)\*

*Xylolentia* Réblová (1)\*

**Thyridiaceae** O.E. Erikss & J.Z. Yue

*Pleurocytospora* Petr. (3)

*Thyridium* Nitschke (34)

**Trichosphaeriaceae** G. Winter

*Brachysporium* Sacc. (25)

*Collematospora* Jeng & Cain (1)

*Coniobrevicolla* Réblová (1)

*Eriosphaeria* Sacc. (24)

*Koorchaloma* Subram. (= *Kananascus* Nag Raj) (11)

*Rizalia* Syd. & P. Syd. (6)

*Schweinitziella* Speg. (4)

*Setocampanula* Sivan. & W.H. Hsieh (1)

*Trichosphaeria* Fuckel (20)

*Unisetosphaeria* Pinnoi, E.B.G. Jones, McKenzie & K.D. Hyde (1)

**Woswasiaceae** H. Zhang, K.D. Hyde & Maharachch.

*Cyanoannulus* Raja, J. Campb. & Shearer (1)

*Woswasia* Jaklitsch, Réblová & Voglmayr (1)

*Xylochrysis* Réblová (1)

**Diaporthomycetidae** genera *incertae sedis*

*Aquapteridospora* Jiao Yang, K.D. Hyde & Maharachch. (1)

*Aquaticola* W.H. Ho, C.K.M. Tsui, Hodgkiss & K.D. Hyde (5)

*Aquimonospora* J. Yang & K.D. Hyde (1)\*  
*Fusoidispora* D. Vijaykr., Jeewon & K.D. Hyde (1)  
*Platytrachelon* Réblová (1)  
*Proliferophorum* G.N. Wang, H. Zhang & Senan. (1)\*  
*Pseudoconlarium* N.G. Liu, K.D. Hyde & J.K. Liu (1)  
*Pseudostanjehughesia* J. Yang & K.D. Hyde (1)

***Hypocreomycetidae*** O.E. Erikss. & Winka

***Coronophorales*** Nannf. (= *Melanosporales* N. Zhang & M. Blackw.)

***Bertiaceae*** Smyk

*Bertia* De Not. (48)  
*Gaillardiella* Pat. (6)

***Ceratostomataceae*** G. Winter

*Arxiomyces* P.F. Cannon & D. Hawksw. (3)  
*Dactylidispora* Y. Marín, Stchigel, Guarro & Cano (3)  
*Echinusithea* Y. Marín, Stchigel, Dania García, Guarro, A.N. Mill. & Cano (1)  
*Erythrocarpon* Zúkal (1)  
*Harzia* Costantin (10)  
*Melanospora* Corda (= *Gonatobotrys* Corda) (69)  
*Microthecium* Corda (= *Pteridiosperma* J.C. Krug & Jeng) (ca. 20)  
*Pseudomicrothecium* Y. Marín, Stchigel, Guarro & Cano (1)  
*Pustulipora* P.F. Cannon (1)  
*Rhytidospora* Jeng & Cain (5)  
*Scopinella* Lév. (9)  
*Setiferothea* Matsush. (1)  
*Sypastospora* P.F. Cannon & D. Hawksw. (4)  
*Vittatispora* P. Chaudhary, J. Campb., D. Hawksw. & K.N. Sastry (1)

***Chaetosphaerellaceae*** Huhndorf, A.N. Mill. & F.A. Fernández

*Chaetosphaerella* E. Müll. & C. Booth (4)  
*Crassochaeta* Réblová (2)  
*Spinulosphaeria* Sivan. (2)

***Coronophoraceae*** Höhn.

*Coronophora* Fuckel (2)

***Nitschkiaceae*** (Fitzp.) Nannf.

*Acanthonitschkea* Speg. (10)  
*Biciliosporina* Subram. & Sekar (1)  
*Botryola* Bat. & J.L. Bezerra (1)  
*Fracchiaea* Sacc. (35)  
*Groenhiella* Jørg. Koch, E.B.G. Jones & S.T. Moss (1)  
*Janannfeldtia* Subram. & Sekar (1)  
*Lasiosphaeriopsis* D. Hawksw. & Sivan. (7)  
*Loranitschkea* Lar.N. Vassiljeva (1)  
*Neochaetosphaerella* Lar.N. Vassiljeva, S.L. Stephenson & Chernyshev (4)  
*Neotrotteria* Sacc. (1)  
*Nitschkia* G.H. Otth ex P. Karst. (66)  
*Rhagadostoma* Körb. (7)  
*Rhagadostomella* Etayo (1)  
*Tortulomyces* Lar.N. Vassiljeva, S.L. Stephenson, Chernyshev & K.D. Hyde (1)

**Scortechiniaceae** Huhndorf, A.N. Mill. & F.A. Fernández

- Biciliospora* Petr. (1)
- Coronophorella* Höhn. (1)
- Cryptosphaerella* Sacc. (20)
- Euacantho* Theiss. (2)
- Neofracchiaea* Teng (1)
- Pseudocatenomyces* Crous & L.A. Shuttlew. (1)
- Scortechinia* Sacc. (9)
- Scortechiniella* Arx & E. Müll. (1)
- Scortechiniellopsis* Sivan. (1)
- Tympanopsis* Starbäck (1)

**Coronophorales** genera *incertae sedis*

- Papulaspora* Preuss (33)
- Sphaerodes* Clem. (9)

**Falcocladiales** R.H. Perera, Maharachch., Somrith., Suetrong & K.D. Hyde

**Falcocladiaceae** Somrith., E.B.G. Jones & K.L. Pang

- Falcocladium* S.F. Silveira, Alfenas, Crous & M.J. Wingf. (5)

**Glomerellales** Chadef. ex Réblová, W. Gams & Seifert

**Australiascaceae** Réblová & W. Gams

- Monilochaetes* Halst. ex Harter (8)

**Glomerellaceae** Locq. ex Seifert & W. Gams

- Colletotrichum* Corda (ca. 895)

**Malaysiascaceae** Tibpromma & K.D. Hyde

- Malaysiasca* Crous & M.J. Wingf. (1)

**Plectosphaerellaceae** W. Gams, Summerb. & Zare

- Acremoniisimulans* Tibpromma & K.D. Hyde (1)
- Acrostalagmus* Corda (13)
- Brunneochlamydosporium* Giraldo López & Crous (4)
- Brunneomyces* A. Giraldo, Gené & Guarro (3)
- Chlamydosporiella* Giraldo López & Crous (1)
- Chordomyces* Bilanenko, Georgieva & Grum-Grzhim. (2)
- Furcaterigmium* Giraldo López & Crous (1)
- Fuscohypha* Giraldo López & Crous (1)
- Gibellulopsis* Bat. & H. Maia (3)
- Lectera* P.F. Cannon (6)
- Longitudinalis* Tibpromma & K.D. Hyde (1)
- Musicillium* Zare & W Gams (2)
- Musidium* Giraldo López & Crous (1)
- Nigrocephalum* Giraldo López & Crous (1)
- Paragibellulopsis* Giraldo López & Crous (1)
- Paramusicillium* Giraldo López & Crous (1)
- Phialoparvum* Giraldo López & Crous (1)
- Plectosphaerella* Kleb. (17)
- Sayamraella* Giraldo López & Crous (1)
- Sodiomyces* A.A. Grum-Grzhim., Debets & Bilanenko (5)
- Stachylidium* Link (7)

*Summerbellia* Giraldo López & Crous (1)  
*Theobromium* Giraldo López & Crous (1)  
*Verticillium* Nees (81)

***Reticulascaceae*** Réblová & W. Gams

*Blastophorum* Matsush. (5)  
*Cylindrotrichum* Bonord. (23)  
*Kylindria* DiCosmo, S.M. Berch & W.B. Kendr. (11)  
*Sporoschismopsis* Hol-Jech. & Hennebert (8)

***Glomerellales*** genus *incertae sedis*

*Ascocodinaea* Samuels, Cand. & Magni (2)

***Hypocreales*** Lindau

***Bionectriaceae*** Samuels & Rossman

*Acremonium* Link (ca. 150)  
*Anthonectria* Döbbeler (1)  
*Aphanotria* Döbbeler (1)  
*Battarrina* (Sacc.) Clem. & Shear (1)  
*Bryocentria* Döbbeler (15)  
*Bryotria* Döbbeler & P.G. Davison (2)  
*Bullanockia* Crous (1)  
*Chrysonectria* Lechat & J. Fourn. (1)\*  
*Clibanites* (P. Karst.) P. Karst. (1)  
*Clonostachys* Corda (78)  
*Dimerosporiella* Speg. (8)  
*Fusariella* Sacc. (17)  
*Geonectria* Lechat & J. Fourn. (1)\*  
*Geosmithia* J. Pitt (24)  
*Gliomastix* Guég. (24)  
*Globonectria* Etayo (1)  
*Gracilistilbella* Seifert (4)  
*Halonectria* E.B.G. Jones (1)  
*Heleococcum* P.M. Jørg. (5)  
*Hydropisphaera* Dumort (29)  
*Ijuhya* Starbäck (22)  
*Kallichroma* Kohlm. & Volkm.-Kohlm. (4)  
*Laniatria* Döbbeler & P.G. Davison (1)  
*Lasionectria* (Sacc.) Cooke (23)  
*Lasionectriella* Lechat & J. Fourn. (2)\*  
*Mycoarachis* Malloch & Cain (2)  
*Mycocitrus* Möller (3)  
*Nectriella* Nitschke ex Fuckel (84)  
*Nectriopsis* Maire (70)  
*Nigrosabulum* Malloch & Cain (1)  
*Ochronectria* Rossman & Samuels (3)  
*Ovicuculispora* Etayo (2)  
*Paracylindrocarpon* Crous, Roets & L. Lombard (4)  
*Paranectria* Sacc. (4)  
*Periantria* Döbbeler & P.G. Davison (2)  
*Peristomialis* (W. Phillips) Boud. (6)  
*Pronectria* Clem. (44)

*Protocreopsis* Yoshim Doi (12)  
*Roumegueriella* Speg. (4)  
*Selinia* P. Karst. (6)  
*Stephanonectria* Schroers & Samuels (1)  
*Stilbocrea* Pat. (7)  
*Stromatonectria* Jaklitsch & H. Voglmayr (1)  
*Synnemellisia* N.K. Rao, Manohar. & Goos (2)  
*Trichonectria* Kirschst. (19)  
*Verrucostoma* Hirooka, Tak. Kobay. & P. Chaverri (2)  
*Xanthonectria* Lechat, J. Fourn. & P.-A. Moreau (1)\*

***Calcarisporiaceae*** Jing Z. Sun, X.Z. Liu & K.D. Hyde

*Calcarisporium* Preuss (8)

***Clavicipitaceae*** (Lindau) Earle ex Rogerson

*Aciculosporium* I. Miyake (= *Neoclaviceps* J.F. White, Bills, S.C. Alderman & Spatafora) (4)  
*Aschersonia* Mont. (= *Hypocrella* Sacc. *vide* Hyde et al. 2020) (170+)  
*Atkinsonella* Diehl (2)  
*Balansia* Speg. (49)  
*Cavimalum* Yoshim. Doi, Dargan & K.S. Thind (2)  
*Claviceps* Tul. (111)  
*Collarina* A. Giraldo, Gené & Guarro (1)  
*Conoideocrella* D. Johnson, G.H. Sung, Hywel-Jones & Spatafora (3)  
*Corallocytostroma* Y.N. Yu & Z.Y. Zhang (2)  
*Dussiella* Pat. (3)  
*Ephelis* Fr. (4)  
*Epichloë* (Fr.) Tul. & C. Tul. (75)  
*Epicrea* Petr. (1)  
*Helicocollum* Luangsa-ard (3)  
*Helminthascus* Tranzschel (1)  
*Heteroepichloë* E. Tanaka, C. Tanaka, Gafur & Tsuda (2)  
*Konradia* Racib. (2)  
*Loculistroma* F. Patt & Charles (1)  
*Metapochonia* Kepler, S.A. Rehner & Humber (6)  
*Metarhiziosis* D.W. Li, R.S. Cowles & C.R. Vossbrinck (1)  
*Metarhizium* Sorokīn (= *Chamaeleomyces* Sigler; = *Metacordyceps* G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora; = *Nomuraea* Maubl.; = *Stereocrea* Syd. & P. Syd.) (78)  
*Moelleriella* Bres. (57)  
*Mycomalus* A. Möller (1)  
*Mycophilomyces* Crous & M.J. Wingf. (1)  
*Myriogenospora* G.F. Atk. (4)  
*Neobarya* Lowen (12)  
*Neocordyceps* Kobayasi (1)  
*Nigelia* Luangsa-ard (2)  
*Nigrocornus* Ryley & Langdon (1)  
*Orbiocrella* D. Johnson, G.H. Sung, Hywel-Jones & Spatafora (1)  
*Parepichloë* J.F. White & P.V. Reddy (4)  
*Periglandula* U. Steiner, E. Leistner & Leuchtm. (2)  
*Pochonia* Bat. & O.M. Fonseca (4)  
*Pseudomeria* G.L. Barron (1)  
*Regiocrella* Chaverri & K.T. Hodge (2)  
*Romanoa* Thirum. (1)

*Rotiferophthora* G.L. Barron (27)  
*Samuelsia* Chaverri & K.T. Hodge (6)  
*Shimizuomyces* Kobayasi (2)  
*Sphaerocordyceps* Kobayasi (2)  
*Tyrannicordyceps* Kepler & Spatafora (5)  
*Ustilaginoidea* Bref. (19)

***Cocoonihabitaceae*** W.Y. Zhuang & Z.Q. Zeng  
*Cocoonihabitatus* W.Y. Zhuang & Z.Q. Zeng (1)

***Cordycipitaceae*** Kreisel ex G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora  
*Akanthomyces* Lebert (= *Torrubiella* Boud., = *Lecanicillium* W. Gams & Zare) (21)\*  
*Amphichorda* Fr. (1)  
*Ascopolyporus* Möller (7)  
*Beauveria* Vuill. (54)  
*Beejasamuha* Subram. & Chandrash. (1)  
*Blackwellomyces* Spatafora & Luangsa-ard (2)  
*Cordyceps* (Fr.) Link (= *Isaria* Pers.; = *Microhilum* H.Y. Yip & A.C. Rath) (498)  
*Coremiopsis* Sizova & Suprun (2)  
*Engyodontium* de Hoog (5)  
*Gibellula* Cavara (= *Granulomanus* de Hoog & Samson) (29)  
*Hevansia* Luangsa-ard, Hywel-Jones & Spatafora (8)  
*Hyperdermium* J.F. White, R.F. Sullivan, Bills & Hywel-Jones (3)  
*Leptobacillium* Zare & W. Gams (1)  
*Parengyodontium* C.C. Tsang, J.F.W. Chan, W.M. Pong, J.H.K. Chen, A.H.Y. Ngan, M. Cheung, C.K.C. Lai, D.N.C. Tsang, S.K.P. Lau & P.C.Y. Woo (1)  
*Pseudogibellula* Samson & H.C. Evans (1)  
*Samsoniella* Mongkols., Noisrip., Thanakitp., Spatafora & Luangsa-ard (3)  
*Simplicillium* W. Gams & Zare (12)

***Flammoclaadiellaceae*** Crous, L. Lombard & R.K. Schumach.  
*Flammoclaadiella* Crous, L. Lombard & R.K. Schumach. (2)

***Hypocreaceae*** De Not.  
*Arachnocrea* Z. Moravec. (3)  
*Dialhypocrea* Speg. (1)  
*Escovopsioides* H.C. Evans & J.O. Augustin (1)  
*Escovopsis* J.J. Muchovej & Della Lucia (14)  
*Hypocreopsis* P. Karst. (14)  
*Hypomyces* (Fr.) Tul. & C. Tul. (ca. 150)  
*Kiflimonium* Summerb., J.A. Scott, Guarro & Crous (1)  
*Lichenobarya* Etayo, Diederich & Lawrey (1)  
*Mycogone* Link (28)  
*Protocrea* Petch (6)  
*Rogersonia* Samuels & Lodge (1)  
*Sepedonium* Link (13)  
*Sphaerostilbella* (Henn.) Sacc. & D. Sacc (13)  
*Sporophagomyces* K. Pöldmaa & Samuels (3)  
*Stephanoma* Wallr. (?6)  
*Trichoderma* Pers. (400+)  
*Verticimonosporium* Matsush. (3)



***Myrotheciomycetaceae*** Crous

- Emericellopsis* J.F.H. Beyma (23)
- Leucosphaerina* Arx (2)
- Myrotheciomyces* Crous (1)
- Trichothecium* Link (9)

***Nectriaceae*** Tul. & C. Tul.

- Albonectria* Rossman & Samuels (1)
- Allantonectria* Earle (1)
- Allonectella* Petr. (2)
- Aphanocladium* W. Gams (4)
- Aquanectria* L. Lombard & Crous (3)
- Atractium* Link (3)\*
- Baipadisphaeria* Pinruan (1)
- Bisifusarium* L. Lombard, Crous & W. Gams (7)
- Calonectria* De Not. (400)
- Calostilbe* Sacc. & Syd. (4)
- Campylocarpon* Halleen, Schroers & Crous (3)
- Chaetonectrioides* Matsush. (1)
- Chaetopsina* Rambelli (19)
- Coccinonectria* Lombard & Crous (2)
- Corallomycetella* Henn. (4)
- Corallonectria* C. Herrera & P. Chaverri (1)
- Corinectria* C. González & P. Chaverri (3)
- Cosmospora* Rabenh. (50)
- Cosmosporella* S.K. Huang, R. Jeewon & K.D. Hyde (1)
- Curviciadiella* Decock & Crous (1)
- Cyanochyta* Höhn. (1)
- Cyanonectria* Samuels & Chaverri (2)
- Cyanophomella* Höhn. (1)
- Cylindrocladiella* Boesew. (45)
- Cylindrodendrum* Bonord. (4)
- Dacryoma* Samuels (2)
- Dactylonectria* L. Lombard & Crous (14)
- Dematiocladium* Allegr., Aramb., Cazau & Crous (2)
- Fusarium* Link (ca. 120)
- Fusicolla* Bonord (18)
- Geejayessia* Schroers, Gräfenhan & Seifert (7)
- Gliocephalotrichum* J.J. Ellis & Hesselt. (13)
- Gliocladiopsis* S.B. Saksena (15)
- Ilyonectria* P. Chaverri & C. Salgado (23)
- Macroconia* (Wollenw.) Gräfenhan, Seifert & Schroers (5)
- Mariannaea* G. Arnaud ex Samson (22)
- Microcera* Desm. (4)
- Murinectria* M. Niranjan & V.V. Sarma (4)
- Nalanthamala* Subram. (6)
- Nectria* (Fr.) Fr. (29)
- Neocosmospora* E.F. Sm. (84)
- Neonectria* Wollenw. (30)
- Neothyronectria* Crous & Thangavel (2)
- Ophionectria* Sacc. (39)
- Pandanaceomyces* Tibpromma & K.D. Hyde (1)

*Paracremonium* L. Lombard & Crous (5)  
*Payosphaeria* W.F. Leong (1)  
*Penicillifer* Emden (7)  
*Persiciospora* P.F. Cannon & D. Hawksw. (4)  
*Pleiocarpon* L. Lombard & D. Aiello (3)  
*Pleogibberella* Sacc. (3)  
*Pleurocolla* Petr. (1)  
*Pseudoachroiostachys* Tibpromma & K.D. Hyde (1)  
*Pseudocosmospora* C. Herrera & P. Chaverri (13)  
*Pseudonectria* Seaver (17)  
*Rectifusarium* L. Lombard, Crous & W. Gams (2)  
*Rugonectria* P. Chaverri & Samuels (5)  
*Sarcopodium* Ehrenb. (22)  
*Stylonectria* Höhn. (5)  
*Thelonectria* P. Chaverri & C.G. Salgado (46)  
*Thyronectria* Sacc. (41)  
*Varicosporella* Lechat & J. Fourn. (1)  
*Varicosporellopsis* Lechat & J. Fourn. (1)\*  
*Volutella* Fr. (127)  
*Xenoacremonium* Lombard & Crous (2)  
*Xenocylindrocladium* Decock, Hennebert & Crous (3)  
*Xenogliocladiopsis* Crous & W.B. Kendr. (2)  
*Xenoleptographium* Marinc., T.A. Duong, Z.W. de Beer & M.J. Wingf. (1)  
*Xenonectriella* Weese (18)

#### **Niessliaceae** Kirschst.

*Atronectria* Etayo (1)  
*Circinoniesslia* Samuels & M.E. Barr (1)  
*Cryptoniesslia* Scheuer (1)  
*Eucasphaeria* Crous (2)  
*Hyaloseta* A.W. Ramaley (1)  
*Malmeomyces* Starb. (1)  
*Melchioria* Penz. & Sacc. (6)  
*Miyakeomyces* Hara (1)  
*Myrmaeciella* Lindau (2)  
*Myrtacremonium* Crous (1)  
*Neoeucasphaeria* Crous (1)  
*Niesslia* Auersw. (43)  
*Paraniesslia* K.M. Tsui, K.D. Hyde & Hodgkiss (2)  
*Pseudohyaloseta* Tibpromma & K.D. Hyde (1)  
*Pseudonectriella* Petr. (1)  
*Pseudorhynchia* Höhn. (2)  
*Rosasphaeria* Jaklitsch & Voglmayr (1)  
*Taiwanascus* Sivan & H.S. Chang (2)  
*Trichosphaerella* E. Bommer, M. Rousseau & Sacc. (= *Neorehmia* Höhn.; = *Oplothecium* Syd.) (4)  
*Valetoniella* Höhn. (3)  
*Valetoniellopsis* Samuels & M.E. Barr (1)

#### **Ophiocordycipitaceae** G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora

*Drechmeria* W. Gams & H.B. Jansson (12)  
*Harposporium* Lohde (37)

*Hirsutella* Pat. (50+)  
*Hymenostilbe* Petch (12)  
*Ophiocordyceps* Petch (263)  
*Paraisaria* Samson & B.L. Brady (11)  
*Perennicordyceps* Matočec & I. Kušan (4)\*  
*Polycephalomyces* Kobayasi (18)\*  
*Purpureocillium* Luangsa-ard, Hywel-Jones, Houbraken & Samson (5)  
*Tolypocladium* W. Gams (47)

***Sarocladiaceae*** L. Lombard

*Parasarocladium* Summerb., J.A. Scott, Guarro & Crous (4)  
*Sarocladium* W. Gams & D. Hawksw. (22)

***Stachybotryaceae*** L. Lombard & Crous

*Achroiostachys* L. Lombard & Crous (6)  
*Albifimbria* L. Lombard & Crous (5)  
*Albosynnema* E.F. Morris (2)  
*Alfaria* Crous, Montañó-Mata & García-Jim. (13)  
*Alfariacodiella* Crous & R.K. Schumach. (1)  
*Brevistachys* L. Lombard & Crous (5)  
*Capitofimbria* L. Lombard & Crous (1)  
*Cymostachys* L. Lombard & Crous (3)  
*Didymostilbe* Henn. (14)  
*Digitiseta* Gordillo & Decock (4)\*  
*Dimorphiseta* L. Lombard & Crous (1)  
*Globobotrys* L. Lombard & Crous (1)  
*Grandibotrys* L. Lombard & Crous (3)  
*Gregatothecium* L. Lombard & Crous (1)  
*Hyalinostachys* C.G. Lin & K.D. Hyde (1)  
*Inaequalispora* L. Lombard & Crous (3)  
*Kastanostachys* L. Lombard & Crous (1)  
*Koorchalomella* Chona, Munjal & J.N. Kapoor (2)  
*Melanopsamma* Niessl (ca. 5)  
*Memmoniella* Höhn. (9)  
*Myrothecium* Tode (2)  
*Myxospora* L. Lombard & Crous (6)  
*Neomyrothecium* L. Lombard & Crous (1)  
*Paramyrothecium* L. Lombard & Crous (14)  
*Parasarcopodium* Melnik, S.J. Lee & Crous (3)  
*Parvothecium* L. Lombard & Crous (2)  
*Peethambara* Subram. & Bhat (1)  
*Pseudoornatispora* Tibpromma & K.D. Hyde (1)  
*Septomyrothecium* Matsush. (4)  
*Sirastachys* L. Lombard & Crous (9)  
*Smaragdiniseta* L. Lombard & Crous (1)  
*Stachybotrys* Corda (12 phylogenetically studied, 81 epithets remain be studied)  
*Striatibotrys* L. Lombard & Crous (7)  
*Striaticonidium* L. Lombard & Crous (5)  
*Tangerinosporium* L. Lombard & Crous (1)  
*Virgatospora* Finley (2)  
*Xenomyrothecium* L. Lombard & Crous (1)  
*Xepicula* Nag Raj (4)

*Xepiculopsis* Nag Raj (2)

**Tilachlidiaceae** Lombard & Crous

*Psychronectria* J. Pawłowska, Istel, Wrzosek, D. Hawksw. (47)

*Septofusidium* W. Gams (5)

*Tilachlidium* Preuss (1)

**Hypocreales** genera *incertae sedis*

*Acremoniopsis* A. Giraldo, Gené & Guarro (1)

*Berkelella* (Sacc.) Sacc. (2)

*Bulbithecium* Udagawa & T Muroi (1)

*Cephalosporiopsis* Peyronel (10)

*Chondronectria* Etayo, Flakus & Kukwa (1)

*Cylindronectria* Etayo (1)

*Diploöspora* Grove (ca. 7)

*Gynonectria* Döbbeler (1)

*Hapsidospora* Malloch & Cain (2)

*Haptospora* G.L. Barron (3)

*Illosporiopsis* D. Hawksw. (1)

*Illosporium* Mart. (17)

*Leptobarya* Etayo (2)

*Lichenopenicillus* Etayo (1)

*Metadothella* Henn. (1)

*Munkia* Speg. (4)

*Neomunkia* Petr. (1)

*Peloronectria* Möller (3)

*Pseudoacremonium* Crous (1)

*Pseudoidriella* Crous & R.G. Shivas (1)

*Pseudomeliola* Speg. (10)

*Rodentomyces* Doveri, Pecchia, Sarrocco & Vannacci (1)

*Roselliniella* Vain (19)

*Saksenamyces* A.N. Rai & P.N. Singh (1)

*Sedecimiella* K.L. Pang, Alias & E.B.G. Jones (1)

*Stanjemonium* W. Gams, O'Donnell, Schroers & M. Chr. (4)

*Stilbella* Lindau (61)

*Ticonectria* Döbbeler (3)

*Tilakidium* Vaidya, C.D. Naik & Rathod (1)

**Jobellisiales** M.J. D'souza & K.D. Hyde

**Jobellisiaceae** Réblová

*Jobellisia* M.E. Barr (8)

**Microascales** Luttr. ex Benny & Kimbr.

**Ceratocystidaceae** Locq. ex Réblová, W. Gams & Seifert

*Ambrosiella* Brader ex Arx & Hennebert (10)

*Berkeleyomyces* W.J. Nel, Z.W. de Beer, T.A. Duong & M.J. Wingf. (2)

*Bretziella* Z.W. de Beer, Marinc., T.A. Duong & M.J. Wingf. (1)

*Ceratocystis* Ellis & Halst. (105)

*Chalaropsis* Peyronel (3)

*Davidsoniella* Z.W. de Beer, T.A. Duong & M.J. Wingf. (4)

*Endoconidiophora* Münch (9)

*Huntiella* Z.W. de Beer, T.A. Duong & M.J. Wingf. (29)

*Meredithiella* McNew, C. Mayers & T.C. Harr. (3)  
*Phialophoropsis* L.R. Batra emend. T.C. Harr. (2)  
*Thielaviopsis* Went. (7)

**Chadefaudiellaceae** Faurel & Schotter ex Benny & Kimbr.

*Chadefaudiella* Faurel & Schotter (2)  
*Faurelina* Locq-Lin. (4)

**Gondwanamycetaceae** Réblová, W. Gams & Seifert

*Custingophora* Stolk (1)  
*Knoxdaviesia* M.J. Wingf., P.S. van Wyk & Marasas. (5)

**Graphiaceae** De Beer

*Graphium* Corda (20)

**Halosphaeriaceae** E. Müll & Arx ex Kohlm.

*Alisea* J. Dupont & E.B.G. Jones (1)  
*Amphitrite* S. Tibell (1)  
*Aniptodera* Shearer & M. Miller (21)  
*Aniptosporopsis* (K.D. Hyde) K.L. Pang (1)  
*Anisostagma* K.R.L. Petersen & Jørg. Koch (1)  
*Antennospora* Meyers (2)  
*Appendichordella* R.G. Johnson, E.B.G. Jones & S.T. Moss (1)  
*Arenariomyces* Höhnk (5)  
*Ascosacculus* J. Campbell, J.L. Anderson & Shearer (1)  
*Bathyascus* Kohlm. (5)  
*Carbosphaerella* I. Schmidt (2)  
*Ceriosporopsis* Linder (9)  
*Chadefaudia* Feldm.-Maz. (6)  
*Corallicola* Volkm.-Kohlm. & Kohlm. (1)  
*Corollospora* Werderm (= *Cirrenalia* Meyers & R.T. Moore; = *Sigmoidea* J.L. Crane) (25)  
*Cucullosporella* K.D. Hyde & E.B.G. Jones (1)  
*Ebullia* K.L. Pang (1)  
*Fluviatispora* K.D. Hyde (3)  
*Gesasha* Abdel-Wahab & Nagah. (3)  
*Haiyanga* K.L. Pang & E.B.G. Jones (1)  
*Haligena* Kohlm. (1)  
*Halosarpheia* Kohlm. & E. Kohlm. (8)  
*Halosphaeria* Linder (1)  
*Halosphaeriopsis* T.W. Johnson (1)  
*Havispora* K.L. Pang & Vrijmoed (1)  
*Iwilsoniella* E.B.G. Jones (1)  
*Kitesporella* Jheng & K.L. Pang (1)  
*Kochiella* Sakay., K.L. Pang & E.B.G. Jones (1)  
*Lautisporopsis* E.B.G. Jones, Yusoff & S.T. Moss (1)  
*Lignincola* Höhnk (2)  
*Limacospora* Jørg. Koch & E.B.G. Jones (1)  
*Luttrellia* Shearer (4)  
*Magnisphaera* J. Campb., J.L. Anderson & Shearer (2)  
*Marinospora* A.R. Caval. (2)  
*Moana* Kohlm. & Volkm.-Kohlm. (1)  
*Morakotiella* Sakay. (1)

*Nais* Kohlm. (3)  
*Natantispora* J. Campb., J.L. Anderson & Shearer (3)  
*Nautosphaeria* E.B.G. Jones (1)  
*Neptunella* K.L. Pang & E.B.G. Jones (1)  
*Nereiospora* E.B.G. Jones, R.G. Johnson & S.T. Moss. (2)  
*Nimbospora* Jørg. Koch (1)  
*Nohea* Kohlm. & Volkm.-Kohlm. (3)  
*Oceanitis* Kohlm. (4)  
*Ocostaspora* E.B.G. Jones, R.G. Johnson & S.T. Moss (1)  
*Okeanomyces* K.L. Pang & E.B.G. Jones (1)  
*Ondiniella* E.B.G. Jones, R.G. Johnson & S.T. Moss (1)  
*Ophiodeira* Kohlm. & Volkm.-Kohlm. (1)  
*Paraaniptodera* K.L. Pang, C.L. Lu, W.T. Ju & E.B.G. Jones (1)  
*Phaeonectriella* R.A. Eaton & E.B.G. Jones (1)  
*Praelongicaulis* E.B.G. Jones, Abdel-Wahab & K.L. Pang (1)  
*Panorbis* J. Campb., J.L. Anderson & Shearer (1)  
*Pileomyces* K.L. Pang & Jheng (1)  
*Pseudolignincola* Chatmala & E.B.G. Jones (1)  
*Remispora* Linder (5)  
*Saagaromyces* K.L. Pang & E.B.G. Jones (3)  
*Sablicola* E.B.G. Jones, K.L. Pang & Vrijmoed (1)  
*Thalassogena* Kohlm. & Volkm.-Kohlm. (1)  
*Thalespora* Chatmala & E.B.G. Jones (1)  
*Tinhaudeus* K.L. Pang, S.Y. Guo & E.B.G. Jones (1)  
*Tirispota* E.B.G. Jones & Vrijmoed (1)  
*Toriella* Sakay., K.L. Pang & E.B.G. Jones (1)  
*Trailia* G.K. Sutherl. (1)  
*Trichomaris* Hibbits, G.C. Hughes & Sparks (1)  
*Tubakiella* Sakay., K.L. Pang & E.B.G. Jones (1)  
*Tunicatispora* K.D. Hyde (1)

***Microascaceae*** Luttr. ex Malloch

*Acaulium* Sopp (4)  
*Brachyconidiellopsis* Decock, R.F. Castañeda & Adhikari (1)  
*Canariomyces* Arx (3)  
*Cephalotrichum* Link (37)  
*Doratomyces* Corda (3)  
*Echinobotryum* Corda (2)  
*Enterocarpus* Locq.-Lin. (2)  
*Fairmania* Sacc. (1)  
*Gamsia* M. Morelet (5)  
*Kernia* Nieuwl. (14)  
*Lomentospora* Hennebert & B.G. Desai (1)  
*Lophotrichus* R.K. Benj. (8)  
*Microascus* Zukal (60)  
*Parascedosporium* Gilgado, Gené, Cano & Guarro (2)  
*Petriella* Curzi (8)  
*Pseudallescheria* Negrone & I. Fisch. (8)  
*Pseudoscopulariopsis* Sand.-Den., Gené & Guarro (2)  
*Rhinocladium* Sacc. & Marchal (11)  
*Scedosporium* Sacc. ex Castell. & Chalm. (12)  
*Scopulariopsis* Bainier (87)

*Wardomyces* F.T. Brooks & Hansf. (11)  
*Wardomycopsis* Udagawa & Furuya (5)  
*Yunnania* H.Z. Kong (3)

**Triadelphiaceae** Y.Z. Lu, J.K. Liu, Z.L. Luo & K.D. Hyde  
*Synnematotriadelphia* Chuaseehar., Somrith., Nuankaew & Boonyuen (2)  
*Triadelphia* Shearer & J.L. Crane (18)\*

**Microascales** genera *incertae sedis*  
*Bisporostilbella* Brandsb. & E.F. Morris (1)  
*Cephalotrichiella* Crous (1)  
*Cornuvesica* C.D. Viljoen, M.J. Wingf. & K. Jacobs (4)  
*Gabarnaudia* Samson & W. Gams (2)  
*Sporendocladia* G. Arnaud ex Nag Raj & W.B. Kendr. (7)

**Pararamichloridiales** Crous  
**Pararamichloridiaceae** Crous  
*Pararamichloridium* Crous (2)

**Torpedosporales** E.B.G. Jones, Abdel-Wahab & K.L. Pang  
**Etheiophoraceae** Rungjind., Somrith. & Suetrong  
*Etheiophora* Kohlm. & Volkm.-Kohlm. (3)  
*Swampomyces* Kohlm. & Volkm. (2)

**Juncigenaceae** E.B.G. Jones, Abdel-Wahab & K.L. Pang  
*Elbamycella* A. Poli, E. Bovio, V. Prigione & G.C. Varese (1)  
*Fulvocentrum* E.B.G. Jones & Abdel-Wahab (3)  
*Juncigena* Kohlm Kohlm., Volkm.-Kohlm. & O.E. Erikss. (2)  
*Khaleijomyces* Abdel-Wahab (1)\*  
*Marinokulati* E.B.G. Jones & K.L. Pang (1)  
*Moheitospora* Abdel-Wahab, Abdel-Aziz & Nagah. (2)

**Torpedosporaceae** E.B.G. Jones & K.L. Pang  
*Torpedospora* Meyers (3)

**Hypocreomycetidae** genera *incertae sedis*  
*Campylospora* Ranzoni (5)  
*Dendroclathra* Voglmayr & G. Delgado (2)

**Lulworthiomycetidae** Dayar., E.B.G. Jones & K.D. Hyde  
**Koralionastetales** Kohlm., Volkm.-Kohlm., J. Campb. & Inderb.  
**Koralionastetaceae** Kohlm. & Volkm.-Kohlm.  
*Koralionastes* Kohlm. & Volkm.-Kohlm. (5)  
*Pontogeneia* Kohlm. (8)

**Lulworthiales** Kohlm., Spatafora & Volkm.-Kohlm.  
**Lulworthiaceae** Kohlm., Spatafora & Volkm.-Kohlm.  
*Cumulospora* I. Schmidt (2)  
*Halazoon* Abdel-Aziz, Abdel-Wahab & Nagah. (2)  
*Haloguignardia* A. Cribb & J. Cribb (1)  
*Hydea* K.L. Pang & E.B.G Jones (1)  
*Kohlmeyeriella* E.B.G. Jones, R.G. Johnson & S.T. Moss (2)

*Lindra* I. Wilson (2)  
*Lulwoana* Kohlm., Volkm.-Kohlm., J. Campb., Spatafora & Gräfenhan (1)  
*Lulwoidea* Kohlm., Volkm.-Kohlm., J. Campb., Spatafora & Gräfenhan (1)  
*Lulworthia* G.K. Sutherl (32)  
*Matsusporium* E.B.G. Jones & K.L. Pang (1)  
*Moleospora* Abdel-Wahab, Abdel-Aziz & Nagah (1)  
*Moromyces* Abdel-Wahab, K.L. Pang, Nagah., Abdel-Aziz & E.B.G. Jones (1)  
*Orbimyces* Linder (1)  
*Rostrupiella* Jørg Koch, K.L. Pang & E.B.G. Jones. (1)  
*Sammeyersia* S. Y. Guo, E.B.G. Jones & K.L. Pang (1)

***Pisorisporiomycetidae*** Bundhun, Maharachch. & K.D. Hyde

***Pisorisporiales*** Réblová & J. Fourn.

***Pisorisporiaceae*** Réblová & J. Fourn.

*Achroceratosphaeria* Réblová, Fourn., K.D. Hyde & Ranghoo (2)

*Pisorisporium* Réblová & J. Fourn. (2)

***Savoryellomycetidae*** Hongsanan, K.D. Hyde & Maharachch.

***Conioscyphales*** Réblová & Seifert

***Conioscyphaceae*** Réblová & Seifert

*Conioscypha* Höhn. (16)

***Fuscosporellales*** Jing Yang, Bhat & K.D. Hyde

***Fuscosporellaceae*** Jing Yang, Bhat & K.D. Hyde

*Bactrodesmiastrum* Hol.-Jech. (5)

*Fuscosporella* Jing Yang (2)

*Mucispora* Jing Yang (2)

*Parafuscosporella* Jing Yang & K.D. Hyde (3)

*Plagiascoma* Réblová & J. Fourn. (1)

*Pseudoascotaiwania* Jing Yang, Bhat & K.D. Hyde (1)

***Pleurotheciales*** Réblová & Seifert

***Pleurotheciaceae*** Réblová & Seifert

*Adelosphaeria* Réblová (1)

*Anapleurothecium* Hern.-Restr., R.F. Castañeda & Gené (1)

*Helicoön* Morgan (28)

*Melanotrigonum* Réblová (1)

*Monotosporella* S. Hughes (4)

*Neomonodictys* Y.Z. Lu, C.G. Lin & K.D. Hyde (1)

*Phaeoisaria* Höhn. (23)

*Phragmocephala* E.W. Mason & S. Hughes (15)

*Pleurotheciella* Réblová (11)

*Pleurothecium* Höhn. (11)

*Sterigmatobotrys* Oudem. (6)

***Savoryellales*** Boonyuen, Suetrong, Sivichai, K.L. Pang & E.B.G. Jones

***Savoryellaceae*** Jaklitsch & Réblová

*Ascotaiwania* Sivan. & H.S. Chang (= *Neoascotaiwania* Hern.-Restr., R.F. Castañeda & Guarro *vide* Dayarathne et al. 2019) (9)

*Canalisporium* Nawawi & Kuthub. (= *Ascothailandia* Sri-indr., Boonyuen, Sivichai & E.B.G. Jones) (15)

*Rhexoacrodictys* W.A. Baker & Morgan-Jones (5)\*



*Savoryella* E.B.G. Jones & R.A. Eaton (11)

**Sordariomycetidae** O.E. Erikss & Winka (= *Meliolomycetidae* P.M. Kirk & K.D. Hyde)\*

**Bolinales** P.F. Cannon

**Boliniaceae** Rick

- Apiocamarops* Samuels & J.D. Rogers (4)
- Apiorhynchostoma* Petr. (4)
- Camaropella* Lar.N. Vassiljeva (2)
- Camarops* P. Karst. (= *Bolinia* (Nitschke) Sacc.) (28)
- Cornipulvina* Huhndorf, A.N. Mill., F.A. Fernández & Lodge (1)
- Endoxyla* Fuckel (3)
- Mollicamarops* Lar.N. Vassiljeva (1)
- Neohypodiscus* J.D. Rogers, Y.M. Ju & Læssøe (3)
- Pseudovalsaria* Spooner (3)

**Cephalothecales** Maharachch. & K.D. Hyde

**Cephalothecaceae** Höhn.

- Albertiniella* Kirschst. (2)
- Cephalotheca* Fuckel (ca. 10)
- Cryptendoxyla* Malloch & Cain (2)
- Phialemonium* W. Gams & McGinnis (6)
- Victoriomyces* D. Davolos, B. Pietrangeli, A.M. Persiani & O. Maggi (1)

**Chaetosphaeriales** Huhndorf, A.N. Mill. & F.A. Fernández

**Chaetosphaeriaceae** Réblová, M.E. Barr & Samuels

- Adautomilanezia* Gusmão, S.S. Silva, Fiuza, L.A. Costa & T.A.B. Santos (1)
- Anacacumisporium* Y.R. Ma & X.G. Zhang (1)
- Ascochalara* Réblová (1)
- Bahusutrabeeja* Subram. & Bhat (6)
- Brunneodinemasporium* Crous & R.F. Castañeda (2)
- Catenularia* Grove (13)
- Chaetosphaeria* Tul. & C. Tul. (ca. 150)
- Chloridium* Link (= *Melanopsammella* Höhn.) (ca. 30)
- Codinaea* Maire (15)
- Conicomycetes* R.C. Sinclair, Eicker & Morgan-Jones (4)
- Craspedodidymum* Hol.-Jech. (14)
- Cryptophiale* Piroz. (ca. 20)
- Cryptophialoidea* Kuthub. & Nawawi (5)
- Dendrophoma* Sacc. (ca. 100)
- Dictyochaeta* Speg. (84)
- Dictyochaetopsis* Aramb. & Cabello (14)
- Dinemasporium* Lév. (35)
- Eucalyptostroma* Crous & M.J. Wingf. (2)
- Exserticlava* S. Hughes (7)
- Hemicorynespora* M.B. Ellis (12)
- Infundibulomyces* Plaingam, Somrith. & E.B.G. Jones (2)
- Kionochaeta* P.M. Kirk & B. Sutton (13)
- Lecythothecium* Réblová & Winka (1)
- Menispora* Pers. (14)
- Menisporopsis* S. Hughes (ca. 10)
- Miyoshiella* Kawam. (3)
- Morrisiella* Saikia & A.K. Sarbhoy (1)

*Nawawia* Marvanová (7)  
*Neopseudolachnella* A. Hashim. & Kaz. Tanaka (3)  
*Paliphora* Sivan. & B. Sutton (7)  
*Phialosporostilbe* Mercado & J. Mena (5)  
*Polynema* Lév. (13)  
*Pseudodinemasporium* A. Hashim. & Kaz. Tanaka (1)  
*Pseudolachnea* Ranoj. (5)  
*Pseudolachnella* Teng (18)  
*Pyrigemmula* D. Magyar & R. Shoemaker (1)  
*Rattania* Prabhug. & Bhat (1)  
*Sporoschisma* Berk. & Broome (15)  
*Striatosphaeria* Samuels & E. Müll. (1)  
*Tainosphaeria* F.A. Fernández & Huhndorf (3)  
*Thozetella* Kuntze (22)  
*Umbrinosphaeria* Réblová (1)  
*Verhulstia* Hern.-Rest. (1)  
*Zanclospora* S. Hughes & W.B. Kendr. (10)

***Helminthosphaeriaceae*** Samuels, Cand. & Magni.

*Echinospaeria* A.N. Mill. & Huhndorf (14)  
*Endophragmiella* B. Sutton (ca. 80)  
*Helminthosphaeria* Fuckel (ca. 20)  
*Hilberina* Huhndorf & A.N. Mill. (ca. 20)  
*Ruzenia* O. Hilber (1)  
*Synaptospora* Cain (5)  
*Tengiomyces* Réblová (1)

***Leptosporrellaceae*** Konta & K.D. Hyde

*Leptosporella* Penz. & Sacc. (17)

***Linocarpaceae*** Konta & K.D. Hyde

*Linocarpon* Syd. & P. Syd. (42)  
*Neolinocarpon* K.D. Hyde (13)

***Chaetosphaeriales*** genera *incertae sedis*

*Calvolachnella* Marinc., T.A. Duong & M.J. Wingf. (1)  
*Caudatispora* J. Fröhl. & K.D. Hyde (2)  
*Erythromada* Huhndorf, A.N. Mill., F.A. Fernández & Lodge (1)  
*Lasiophaeriella* Sivan. (6)  
*Neoleptosporella* Phukhams., Perera & K.D. Hyde (2)  
*Neonawawia* Jing Yang, K.D. Hyde & J.K. Liu (1)  
*Rimaconus* Huhndorf, F.A. Fernández, Joanne E. Taylor & K.D. Hyde (2)

***Coniochaetales*** Huhndorf, A.N. Mill. & F.A. Fernández (= *Cordanales* M. Hern.-Rest. & Crous)

***Coniochaetaceae*** Malloch & Cain

*Barrina* A.W. Ramaley (1)  
*Coniochaeta* (Sacc.) Cooke (82)

***Cordanaceae*** Nann.

*Cordana* Preuss (19)

***Coniochaetales*** genera *incertae sedis*

*Cannonia* J.E. Taylor & K.D. Hyde (1)

*Pseudogliomastix* W. Gams (1)

**Meliolales** Gäum. ex D. Hawksw. & O.E. Erikss.

**Armatellaceae** Hosag.

*Armatella* Theiss. & Syd. (19)

**Meliolaceae** G.W. Martin ex Hansf.

*Amazonia* Theiss. (60)

*Appendiculella* Höhn. (70)

*Asteridiella* McAlpine (2)

*Cryptomeliola* S. Hughes & Piroz. (3)

*Endomeliola* S. Hughes & Piroz. (1)

*Irenopsis* F. Stevens (150)

*Meliola* Fr. (1700)

*Setameliola* D.R. Reynolds (17)

**Phyllachorales** M.E. Barr

**Phaeochoraceae** K.D. Hyde, P.F. Cannon & M.E. Barr

*Cocoicola* K.D. Hyde (5)

*Phaeochora* Höhn. (4)

*Phaeochoropsis* K.D. Hyde & P.F. Cannon (4)

*Serenomyces* Petr. (4)

**Phaeochorellaceae** Guterres, Galvão-Elias & Dianese

*Phaeochorella* Theiss. & Syd. (6)

**Phyllachoraceae** Theiss. & H. Syd.

*Ascovaginospora* Fallah, Shearer & W.D. Chen (1)

*Brobdingnagia* K.D. Hyde & P.F. Cannon (4)

*Camarotella* Theiss. & Syd. (8)

*Cocodiella* Hara (27)

*Cyclodomus* Höhn. (5)

*Deshpandiella* Kamat & Ullasa (1)

*Diachora* Müll. Arg. (4)

*Diatractium* Syd. & P. Syd. (4)

*Erikssonina* Penz. & Sacc. (5)

*Frematomyces* P.F. Cannon & H.C. Evans (2)

*Geminispora* Pat. (2)

*Gibellina* Pass. Ex Roum. (2)

*Imazekia* Tak. Kobay. & Y. Kawabe (1)

*Isothea* Fr. (4)

*Lichenochora* Hafellner (44)

*Lindauella* Rehm (1)

*Linochora* Höhn. (37)

*Lohwagia* Petr. (3)

*Maculatifrones* K.D. Hyde (1)

*Malthomyces* K.D. Hyde & P.F. Cannon (2)

*Muelleromyces* Kamat & Anahosur (1)

*Neoflageoletia* J. Reid & C. Booth (1)

*Neophyllachora* Dayar. & K.D. Hyde (4)

*Ophiodothis* Sacc. (6)

*Ophiodothella* (Henn.). Höhn. (31)  
*Orphnodactylis* Malloch & Mallik (2)  
*Oxodeora* K.D. Hyde & P.F. Cannon (1)  
*Parberya* C.A. Pearce & K.D. Hyde (2)  
*Petrakiella* Syd. (1)  
*Phycomelaina* Kohlm. (1)  
*Phyllachora* Nitschke ex Fuckel (1513)  
*Phylleutypa* Petr. (3)  
*Phyllocrea* Höhn. (3)  
*Pseudothiella* Petr. (1)  
*Pseudothiopsella* Petr. (1)  
*Pterosporidium* W.H. Ho & K.D. Hyde (2)  
*Rehmiodothis* Theiss. & Syd. (10)  
*Retroa* P.F. Cannon (2)  
*Rhodosticta* Woron. (2)  
*Rikatlia* P.F. Cannon (1)  
*Schizochora* Syd. & P. Syd. (3)  
*Sphaerodothella* C.A. Pearce & K.D. Hyde (1)  
*Sphaerodothis* (Sacc. & P. Syd.) Shear (43)  
*Stigmatula* (Sacc.) Syd. & P. Syd. (10)  
*Stigmochora* Theiss. & Syd. (12)  
*Stromaster* Höhn. (1)  
*Tamsiniella* S.W. Wong, K.D. Hyde, W.H. Ho & S.J. Stanley (1)  
*Telimenella* Petr. (3)  
*Telimenochora* Sivan. (1)  
*Trabutia* Sacc. & Roum. (1)  
*Tribulatia* J.E. Taylor, Hyde & E.B.G. Jones (1)  
*Uropolystigma* Maubl. (1)  
*Vitreostroma* P.F. Cannon (3)  
*Zimmermanniella* Henn. (1)

***Telimenaceae*** Mardones, T. Trampe & M. Piepenbr

*Telimenia* Racib. (14)

***Phyllachorales*** genus *incertae sedis*

*Marinosphaera* K.D. Hyde (1)

***Pseudodactylariales*** Crous

***Pseudodactylariaceae*** Crous

*Pseudodactylaria* Crous (3)

***Sordariales*** Chad. ex D. Hawksw. & O.E. Erikss.

***Chaetomiaceae*** G. Winter

*Achaetomium* J.N. Rai, Tewari & Mukerji (16)

*Acrophialophora* Edward (17)

*Allobotryotrichum* M. Raza & L. Cai (1)

*Amesia* X. Wei Wang, Samson & Crous (4)

*Arcopilus* X. Wei Wang, Samson & Crous (5)

*Arxotrichum* A. Nováková & M. Kolařík (2)

*Botryotrichum* Sacc. & Marchal (11)

*Brachychaeta* X. Wei Wang & Houbraken (1)

*Carteria* X. Wei Wang & Houbraken (1)

*Chaetomium* Kunze (359)  
*Chrysanthotrichum* X. Wei Wang & Houbraken (4)  
*Chrysocorona* X. Wei Wang & Houbraken (1)  
*Collariella* X. Wei Wang, Samson & Crous (9)  
*Condensascus* X. Wei Wang & Houbraken (1)  
*Corynascella* Arx & Hodges (1)  
*Crassicarpon* Y. Marín, Stchigel, Guarro & Cano (3)  
*Dichotomopilus* X. Wei Wang, Samson & Crous (12)  
*Floropilus* X. Wei Wang & Houbraken (1)  
*Guanomyces* M.C. Gonzáles, Hanlin & Ulloa (1)  
*Humicola* Traaen (86)  
*Hyalosphaerella* X. Wei Wang & Houbraken (1)  
*Madurella* Brumpt (15)  
*Melanocarpus* Arx (5)  
*Microthielavia* X. Wei Wang & Houbraken (1)  
*Myceliophthora* Costantin (4)  
*Ovatospora* X. Wei Wang, Samson & Crous (6)  
*Parathielavia* X. Wei Wang & Houbraken (3)  
*Pseudothielavia* X. Wei Wang & Houbraken (4)  
*Remersonia* Samson & Seifert (2)\*  
*Retroconis* de Hoog & Bat. Vegte (1)\*  
*Staphylotrichum* J.A. Mey. & Nicot (8)  
*Stolonocarpus* X. Wei Wang & Houbraken (1)  
*Subramaniula* Arx (9)  
*Thermothelomyces* Y. Marín, Stchigel, Guarro & Cano (4)  
*Thermothielavioides* X. Wei Wang & Houbraken (1)  
*Thielavia* Zopf (47)  
*Trichocladium* Harz (44)

### ***Lasiosphaeriaceae* Nannf.**

*Anopodium* Lundq. (2)  
*Apiosordaria* Arx & W. Gams (31)  
*Apodospora* Cain & J.H. Mirza (6)  
*Apodus* Malloch & Cain (2)  
*Arnium* Nitschke ex G. Winter (34)  
*Bellojisia* Réblová (1)  
*Biconiosporella* Schaumann (1)  
*Bombardia* (Fr.) P. Karst. (43)  
*Bombardioidea* C. Moreau ex N. Lundqv. (5)  
*Camptosphaeria* Fuckel (4)  
*Cercophora* Fuckel (77)  
*Corylomyces* Stchigel, M. Caldusch & Guarro (1)  
*Diffractella* Guarro, P.F. Cannon & Aa (1)  
*Diplogelasinospora* Cain (4)  
*Emblemospora* Jeng & J.C. Krug (2)  
*Eosphaeria* Höhn. (2)  
*Episternus* Górz & Boroń (1)  
*Fimetariella* N. Lundq. (9)  
*Immersiella* A.N. Mill. & Huhndorf (2)  
*Jugulospora* N. Lundq. (1)  
*Lasiosphaeria* Ces. & De Not. (229)  
*Mammaria* Ces. ex Rabenh. (2)

*Periamphispora* J.C. Krug (1)  
*Ramophialophora* M. Calduch, Stchigel, Gené & Guarro (4)\*  
*Rinaldiella* Deanna A. Sutton, Y. Marín, Guarro & E.H. Thomps (1)  
*Schizothecium* Corda (31)  
*Strattonia* Cif. (11)  
*Thaxteria* Sacc. (8)  
*Tripterosporella* Subram. & Lodha (5)  
*Zopfiella* G. Winter (22)  
*Zygopleurage* Boedijn (3)  
*Zygospormella* Cain (3)

***Podosporaceae*** X. Wei Wang & Houbraken

*Cladorrhinum* Sacc. & Marchal (13)\*  
*Triangularia* Boedijn (7)  
*Podospora* Ces. (92)

***Sordariaceae*** G. Winter

*Copromyces* N. Lundq. (1)  
*Effetia* Bartoli, Maggi & Persiani (1)  
*Guilliermondia* Boud. (1)  
*Neurospora* Shear & B.O. Dodge (= *Gelasinospora* Dowding) (60)  
*Pseudoneurospora* Dania García, Stchigel & Guarro (2)  
*Sordaria* Ces. & De Not. (37)  
*Stellatospora* T. Ito & A. Nakagiri (1)

***Sordariales*** genera *incertae sedis*

*Abyssomyces* Kohlm (1)  
*Acanthotheciella* Höhn. (3)  
*Ascolacicola* Ranghoo & K.D. Hyde (1)  
*Bombardiella* Höhn. (1)  
*Coronatomyces* Dania García, Stchigel & Guarro (1)  
*Cuspidatispora* Shearer & Bartolata (1)  
*Globosphaeria* D. Hawksw. (1)  
*Isia* D. Hawksw & Manohar (2)  
*Lasiosphaeris* Clem. (3)  
*Lunulospora* Ingold (2)  
*Lockerbia* K.D. Hyde (2)  
*Nitschkiopsis* Nannf. & R. Sant. (1)  
*Onygenopsis* Henn. (1)  
*Phaeosporis* Clem. (2)  
*Reconditella* Matzer & Hafellner (1)  
*Rhexodenticula* W.A. Baker & Morgan-Jones (4)  
*Rhexosporium* Udagawa & Furuya (1)  
*Roselliniomyces* Matzer & Hafellner (7)  
*Roselliniopsis* Matzer & Hafellner (7)  
*Stromatographium* Höhn. (= *Fluviostroma* Samuels & E. Müll.) (2)  
*Utriascus* Réblová (1)  
*Ypsilonia* Lév. (3)

***Sordariomycetidae*** family *incertae sedis*

***Batistiaceae*** Samuels & K.F. Rodrigues

*Batistia* Cif. (1)

***Sordariomycetidae*** genera *incertae sedis*

- Arecacicola* Joanne E. Taylor, J. Fröhl. & K.D. Hyde (1)
- Bullimyces* A. Ferrer, A.N. Mill., Sarmiento & Shearer (3)
- Cancellidium* Tubaki (2)
- Ceratolenta* Réblová (1)
- Chaetosphaerides* Matsush. (1)
- Cryptophyllachora* L. Kiss, Kovács & R.G. Shivas (2)\*
- Hanliniomyces* Raja & Shearer (1)
- Hydromelitis* A. Ferrer, A.N. Mill., Sarmiento & Shearer (1)
- Merugia* Rogerson & Samuels (1)
- Mycomedusiospora* G.C. Carroll & Munk (1)
- Myxocephala* G. Weber, Spaaij & Oberw. (1)
- Nigromammilla* K.D. Hyde & J. Fröhl. (1)
- Phaeotrichosphaeria* Sivan. (4)
- Phragmodiscus* Hansf. (2)
- Pseudobotrytis* Krzemien. & Badura (2)

***Xylariomycetidae*** O.E. Erikss & Winka

***Amphisphaeriales*** D. Hawksw. & O.E. Erikss.

***Amphisphaeriaceae*** G. Winter

- Amphisphaeria* Ces. & De Not. (66)
- Griphosphaerioma* Höhn. (2)
- Lepteutypa* Petr. (14)

***Apiosporaceae*** K.D. Hyde, J. Fröhl., Joanne E. Taylor & M.E. Barr

- Appendicospora* K.D. Hyde (2)
- Arthrinium* Kunze (74)
- Dictyoarthrinium* S. Hughes (6)
- Endocalyx* Berk. & Broome (8)
- Nigrospora* Zimm. (ca. 20)

***Beltraniaceae*** Nann.

- Beltrania* Penz. (17)
- Beltraniella* Subram. (25)
- Beltraniopsis* Bat. & J.L. Bezerra (11)
- Hemibeltrania* Piroz. (13)
- Parapleurotheciopsis* P.M. Kirk (5)
- Porobeltraniella* Gusmão (2)
- Pseudobeltrania* Henn. (9)
- Subramaniomyces* Varghese & V.G. Rao (3)
- Subsessila* C.G. Lin & K.D. Hyde (1)

***Clypeophysalosporaceae*** Giraldo & Crous

- Bagadiella* Cheew. & Crous (4)
- Clypeophysalospora* H.J. Swart (1)
- Neophysalospora* Crous & M.J. Wingf. (1)
- Plectosphaera* Theiss. (28)

***Cylindriaceae*** Crous & L. Lombard\*

- Cylindrium* Bonord (6)

***Hansfordiaceae*** Crous

*Hansfordia* S. Hughes (7)

***Hyponectriaceae*** Petr.

*Apiothyrium* Petr. (2)  
*Arecomyces* K.D. Hyde (10)  
*Arwidsonia* B. Erikss. (2)  
*Cesatiella* Sacc. (3)  
*Chamaeascus* L. Holm, K. Holm & M.E. Barr (1)  
*Discosphaerina* Höhn. (21)  
*Exarmidium* P. Karst. (14)  
*Frondicola* K.D. Hyde (1)  
*Hyponectria* Sacc. (30)  
*Lichenoverruculina* Etayo (1)  
*Micronectria* Speg. (4)  
*Papilionovela* Aptroot (1)  
*Pellucida* Dulym., Sivan., P.F. Cannon & Peerally (1)  
*Phragmitensis* M.K.M. Wong, Poon & K.D. Hyde (2)  
*Physalospora* Niessl (37)  
*Rachidicola* K.D. Hyde & J. Fröhl. (1)  
*Xenothecium* Höhn. (1)

***Iodosphaeriaceae*** O. Hilber

*Iodosphaeria* Samuels (8)

***Melogrammataceae*** G. Winter

*Melogramma* Fr. (20)

***Phlogicylindriaceae*** Senan. & K.D. Hyde

*Ciferriascosea* Senan., Bhat, Camporesi & K.D. Hyde (2)  
*Idriellomyces* Crous (1)  
*Phlogicylindrium* Crous, Summerb. & Summerell (5)

***Pseudomassariaceae*** Senan. & K.D. Hyde

*Leiosphaerella* Höhn. (15)  
*Pseudapiospora* Petr. (3)  
*Pseudomassaria* Jacz. (24)  
*Pseudomassariella* Petr (1)

***Pseudotruncatellaceae*** Crous

*Pseudotruncatella* R.H. Perera, Camporesi, Maharachch. & K.D. Hyde (2)

***Sporocadaceae*** Corda\*

*Allelochaeta* Petr. (50)  
*Annellolacinia* B. Sutton (2)  
*Bartalinia* Tassi (19)  
*Broomella* Sacc. (2)  
*Ciliochorella* Syd. (4)  
*Dilophospora* Desm. (ca. 2 + few orphaned names)  
*Diploceras* (Sacc.) Died (2)  
*Disaeta* Bonar (1)  
*Discosia* Lib. (ca. 17)  
*Distononappendiculata* F. Liu, L. Cai & Crous (3)



*Diversimediispora* F. Liu, L. Cai & Crous (1)  
*Doliomyces* Steyaert (3)  
*Heterotruncatella* F. Liu, L. Cai & Crous (17)  
*Hyalotiella* Papendorf (6)  
*Hymenopleella* Munk (= *Dyrithiopsis* L. Cai, Jeewon & K.D. Hyde; = *Neotruncatella* Hyang B. Lee & T.T.T. Nguyen) (7)  
*Immersidiscosia* Kaz. Tanaka, Okane & Hosoya (1)  
*Monochaetia* (Sacc.) Allesch. (ca. 30)  
*Morinia* Berl. & Bres. (= *Zetiasplozina* Nag Raj) (2)  
*Neopestalotiopsis* Maharachch., K.D. Hyde & Crous (33)  
*Nonappendiculata* F. Liu, L. Cai & Crous (1)  
*Parabartalinia* F. Liu, L. Cai & Crous (1)  
*Pestalotiopsis* Steyaert (ca. 100)  
*Pseudopestalotiopsis* Maharachch., K.D. Hyde & Crous (12)  
*Pseudosarcostroma* F. Liu, L. Cai & Crous (1)  
*Robillarda* Sacc. (ca. 15)  
*Sarcostroma* Cooke (28)  
*Seimatosporium* Corda (ca. 100)  
*Seiridium* Nees (20)  
*Sporocadus* Corda (49)  
*Strickeria* Körb. (10)  
*Synnemapestaloides* T. Handa & Y. Harada (2)  
*Truncatella* Steyaert (13)  
*Xenoseimatosporium* F. Liu, L. Cai & Crous (1)

***Vialaeaceae*** P.F. Cannon

*Vialaea* Sacc. (50)

***Amphisphaeriales*** genus *incertae sedis*

*Chitonospora* E. Bommer, M. Rousseau & Sacc. (1)

***Delonicicolales*** R.H. Perera, Maharachch. & K.D. Hyde

***Delonicicolaceae*** R.H. Perera, Maharachch. & K.D. Hyde

*Delonicicola* R.H. Perera, Maharachch. & K.D. Hyde (1)

*Furfurella* Voglmayr & Jaklitsch (3)

***Xylariales*** Nannf.

***Anungitiomycetaceae*** Crous

*Anungitiomyces* Crous (1)

***Barrmaeliaceae*** Voglmayr & Jaklitsch\*

*Barrmaelia* Rappaz. (8)

*Entosordaria* (Sacc.) Höhn. (ca. 18)

***Castanediellaceae*** Hern.-Restr., Guarro & Crous

*Castanediella* Hern.-Restr., Crous & M.J. Wingf. (12)

***Clypeosphaeriaceae*** G. Winter

*Aquasphaeria* K.D. Hyde (1)

*Apioclypea* K.D. Hyde (7)

*Brunneiapiospora* K.D. Hyde, J. Fröhl. & Joanne E. Taylor (9)

*Clypeosphaeria* Fuckel (37)

*Crassoascus* Checa, Barrasa & A.T. Martínez (3)  
*Palmaria* K.D. Hyde, J. Fröhl. & Joanne E. Taylor (1)

**Conioceciaceae** Asgari & Zare

*Coniocecia* Dania García, Stchigel, D. Hawksw. & Guarro (5)  
*Paraxylaria* Wanas., E.B.G. Jones, Gafforov & K.D. Hyde (1)

**Diatrypaceae** Nitschke

*Allocryptovalsa* Senwana, Phook. & K.D. Hyde (2)  
*Anthostoma* Nitschke (ca. 101)  
*Cryptosphaeria* Ces & De Not. (48)  
*Cryptovalsa* Ces. & De Not. ex Fuckel (43)  
*Diatrypasimilis* J.J. Zhou & Kohlm. (1)  
*Diatrype* Fr. (ca. 244)  
*Diatrypella* (Ces. & De Not.) De Not. (ca. 115)  
*Echinomyces* Rappaz (2)  
*Endoxylina* Romell (16)  
*Eutypa* Tul. & C. Tul. (ca. 131)  
*Eutypella* (Nitschke) Sacc. (ca. 196)  
*Halodiatrype* Dayar. & K.D. Hyde (3)  
*Halocryptovalsa* Dayar. & K.D. Hyde (2)  
*Leptoperidia* Rappaz (4)  
*Libertella* Desm. (ca. 72)  
*Monosporascus* Pollack & Uecker (4)  
*Neoeutypella* M. Raza, Q.J. Shang, Phook. & L. Cai (1)\*  
*Pedumispora* K.D. Hyde & E.B.G. Jones (1)  
*Peroneutypa* Berl. (30)  
*Quaternaria* Tul. & C. Tul. (14)

**Fasciatisporaceae** S.N. Zhang, K.D. Hyde & J.K. Liu

*Fasciatispora* K.D. Hyde (11)

**Graphostromataceae** M.E. Barr, J.D. Rogers & Y.M. Ju

*Biscogniauxia* Kuntze (ca. 76)  
*Camillea* Fr. (50)  
*Graphostroma* Piroz. (1)  
*Obolarina* Pouzar (2)  
*Vivantia* J.D. Rogers, Y.M. Ju & Cand. (1)

**Hypoxylaceae** DC.

*Annulohypoxylon* Y.M. Ju, J.D. Rogers & H.M. Hsieh (ca. 60)  
*Anthocanalis* Daranag., Camporesi & K.D. Hyde (1)  
*Chlorostroma* A.N. Mill., Lar.N. Vassiljeva & J.D. Rogers (3)  
*Daldinia* Ces. & De Not. (ca. 67)  
*Durotheca* Læssøe, Srikit., Luangsa-ard & M. Stadler (4)\*  
*Entonaema* Möller (10)  
*Hypomontagnella* Sir, L. Wendt & C. Lambert (4)\*  
*Hypoxylon* Bull. (141)  
*Jackrogersella* L. Wendt, Kuhnert & M. Stadler (6)  
*Natonodosa* Heredia (1)  
*Phylacia* Lév. (12)  
*Pyrenomyxa* Morgan (3)

*Pyrenopolyporus* Lloyd (5)  
*Rhopalostroma* D. Hawksw. (11)  
*Rostrohypoxylon* J. Fourn. & M. Stadler (1)  
*Ruwenzoria* J. Fourn., M. Stadler, Læssøe & Decock (1)  
*Thamnomycetes* Ehrenb. (11)  
*Theissenia* Maubl. (8)  
*Thuemenella* Penz. & Sacc. (10)

**Induratiaceae** Samarak., Thongbai, K.D. Hyde & M. Stadler  
*Emarcea* Duong, Jeewon & K.D. Hyde (3)  
*Induratia* Samuels, E. Müll. & Petrini (26)

**Leptosilliaceae** Voglmayr & Jaklitsch  
*Leptosillia* Höhn. (= *Cresporhaphis* M.B. Aguirre) (9)\*

**Lopadostomataceae** Daranag. & K.D. Hyde  
*Creosphaeria* Theiss. (3)  
*Jumillera* J.D. Rogers, Y.M. Ju & F. San Martín (8)  
*Lopadostoma* (Nitschke) Traverso (27)  
*Whalleya* J.D. Rogers, Y.M. Ju & F. San Martín (2)

**Microdochiaceae** Hern.-Restr., Crous & J.Z. Groenew.  
*Idriella* P.E. Nelson & S. Wilh. (= *Monographella* Petr.) (24)  
*Microdochium* Syd. (38)  
*Selenodriella* R.F. Castañeda & W.B. Kendr. (7)

**Myelospermataceae** K.D. Hyde & S.W. Wong  
*Myelosperma* Syd. & P. Syd. (5)

**Nothodactylariaceae** Crous  
*Nothodactylaria* Crous (1)

**Oxydothidaceae** Konta & K.D. Hyde  
*Oxydothis* Penz. & Sacc. (79)

**Polystigmataceae** Höhn. ex Nannf.\*  
*Polystigma* DC. (23)

**Pseudosporidesmiaceae** Crous  
*Pseudosporidesmium* K.D. Hyde & McKenzie (2)

**Requienellaceae** Boise\*  
*Acrocordiella* O.E. Erikss. (2)  
*Lacrymospora* Aptroot (1)  
*Parapyrenis* Aptroot (8)  
*Requienella* Fabre (8)

**Xyladictyochaetaceae** Crous & Hern.-Restr\*  
*Xyladictyochaeta* Hern.-Restr., R.F. Castañeda & Gené (1)

**Xylariaceae** Tul. & C. Tul.  
*Abieticola* Hyang B. Lee (1)

*Amphirosellinia* Y.M. Ju, J.D. Rogers, H.M. Hsieh & Lar.N. Vassiljeva (6)  
*Anthostomella* Sacc. (ca. 100)  
*Anthostomelloides* Tibpromma & K.D. Hyde (5)  
*Ascotricha* Berk. (27)  
*Astrocystis* Berk. & Broome (24)  
*Brunneiperidium* Daranag., Camporesi & K.D. Hyde (2)  
*Collodiscula* I. Hino & Katum. (5)  
*Coniolarrella* Dania García, Stchigel & Guarro (5)  
*Engleromyces* Henn. (2)  
*Entalbostroma* J.D. Rogers & P.R. Johnst. (1)  
*Entoleuca* Syd. (3)  
*Euepaxydon* Füsting (2)  
*Halorosellinia* Whalley, E.B.G. Jones, K.D. Hyde & Læssøe (3)  
*Helicogermis* Lodha & D. Hawksw. (9)  
*Hypocopra* (Fr) J. Kickx f. (58)  
*Hypocreodendron* Henn. (1)  
*Kretzschmaria* Fr. (ca. 57)  
*Kretzschmaria* Viégas (2)  
*Leprieuria* Læssøe, J.D. Rogers & Whalley (1)  
*Lunatiannulus* Daranag., Camporesi & K.D. Hyde (1)  
*Nemania* Gray (57)  
*Podosordaria* Ellis & Holw. (35)  
*Poronia* Willd. (ca. 24)  
*Rosellinia* De Not. (ca. 359)  
*Sarcoxydon* Cooke (6)  
*Squamotubera* Henn. (1)  
*Stilbohypoxydon* Henn. (12)  
*Vamsapriya* Gawas & Bhat (8)  
*Virgaria* Nees (11)  
*Wawelia* Namysl. (5)  
*Xylaria* Hill ex Schrank (ca. 571)

**Zygosporiaceae** J.F. Li, Phook. & K.D. Hyde.

*Zygosporium* Mont. (25)

**Xylariales** genera *incertae sedis*

*Adomia* S. Schatz (1)  
*Alloanthostomella* Daranag., Camporesi & K.D. Hyde (1)  
*Anungitea* B. Sutton (22)  
*Ascotrichella* Valldos. & Guarro (1)  
*Basifimbria* Subram. & Lodha (1)  
*Biporispora* J.D. Rogers, Y.M. Ju & Cand. (1)  
*Botryohypoxydon* Samuels & J.D. Rogers (1)  
*Castellaniomyces* Senan., Camporesi & K.D. Hyde (1)  
*Chaenocarpus* Rebent. (4)  
*Circinotrichum* Nees (15)  
*Cryptostroma* P.H. Greg. & S. Waller (1)  
*Cyanopulvis* J. Fröhl. & K.D. Hyde (1)  
*Diamantina* A.N. Mill., Læssøe & Huhndorf (1)  
*Gigantospora* B.S. Lu & K.D. Hyde (1)  
*Guestia* G.J.D. Sm. & K.D. Hyde (1)  
*Gyrothrix* (Corda) Corda (22)

*Hadrotrichum* Fuckel (22)  
*Idriellopsis* Hern.-Restr. & Crous (1)  
*Kirstenboschia* Quaedvl., Verkley & Crous (1)  
*Lanceispora* Nakagiri, Okane, Tad. Ito & Katum. (2)  
*Lasiobertia* Sivan. (2)  
*Leptomassaria* Petr. (4)  
*Melanographium* Sacc. (11)  
*Neoanthostomella* D.Q. Dai & K.D. Hyde (2)  
*Neoidriella* Hern.-Restr. & Crous (1)  
*Nipicola* K.D. Hyde (4)  
*Occultitheca* J.D. Rogers & Y.M. Ju (1)  
*Ophiorosellinia* J.D. Rogers, A. Hidalgo, F.A. Fernández & Huhndorf (1)  
*Palmicola* K.D. Hyde (4)  
*Pandanicola* K.D. Hyde (2)  
*Paraidriella* Hern.-Restr. & Crous (1)  
*Paramphisphaeria* F.A. Fernández, J.D. Rogers, Y.M. Ju, Huhndorf & L. Umaña (1)  
*Paraphysalospora* Crous (1)  
*Paucithecium* Lloyd (1)  
*Pidoplitchkoviella* Kiril. (1)  
*Polyancora* Voglmayr & Yule (1)  
*Polyscytalum* Riess (28)  
*Poroleprieuria* M.C. González, Hanlin, Ulloa & Elv. Aguirre (1)  
*Pseudoanthostomella* Daranag., Camporesi & K.D. Hyde (5)  
*Pseudophloeospora* Crous & R.G. Shivas (2)  
*Pseudosubramaniomyces* Crous (1)  
*Pulmosphaeria* Joanne E. Taylor, K.D. Hyde & E.B.G. Jones (1)  
*Pyriformiascoma* Daranag., Camporesi & K.D. Hyde (1)  
*Roselymyces* Fiuza, C.R. Silva, R.F. Castañeda & Gusmão (1)\*  
*Sabalicola* K.D. Hyde (1)  
*Spirodecospora* B.S. Lu, K.D. Hyde & W.H. Ho (2)  
*Sporidesmina* Subram. & Bhat (1)  
*Striatodecospora* D.Q. Zhou, K.D. Hyde & B.S. Lu (1)  
*Stromatoneurospora* S.C. Jong & E.E. Davis (2)  
*Surculiseria* Okane (1)  
*Synnemadiella* Crous & M.J. Wingf. (1)  
*Tristratiperidium* Daranag., Camporesi & K.D. Hyde (1)  
*Xenoanthostomella* Mapook & K.D. Hyde (1)  
*Xylocrea* Möller (2)  
*Xylotumulus* J.D. Rogers, Y.M. Ju & Cand. (1)  
*Yuea* O.E. Erikss. (1)

***Xylariomycetidae* family *incertae sedis***

***Cainiaceae* J.C. Krug**

*Alishanica* A. Karunarathna, C.H. Kuo & K. D. Hyde (1)  
*Amphibambusa* D.Q. Dai & K.D. Hyde (1)  
*Arecophila* K.D. Hyde (14)  
*Atrotorquata* Kohlm. & Volkm.-Kohlm. (2)  
*Cainia* Arx & E. Müll. (6)  
*Seynesia* Sacc. (ca. 46)

***Xylariomycetidae* genus *incertae sedis***

*Calceomyces* Udagawa & S. Ueda (1)

***Sordariomycetes*** orders *incertae sedis*

***Amplistromatales*** M.J. D'souza, Maharachch. & K.D. Hyde

***Amplistromataceae*** Huhndorf, A.N. Mill., Greif & Samuels\*

*Acidothrix* Hujšlová & M. Kolařík (1)

*Amplistroma* Huhndorf, A.N. Mill., Greif & Samuels (9)

*Wallrothiella* Sacc. (ca. 10)

***Catabotryaceae*** Petr. ex M.E. Barr

*Catabotrys* Theiss. & Syd. (3)

***Parasymphodiellales*** Hern.-Restr., Gené, R.F. Castañeda & Crous

***Parasymphodiellaceae*** Hern.-Restr., Gené, Guarro & Crous

*Parasymphodiella* Ponnappa (10)

***Spathulosporales*** Kohlm.

***Hispidicarpomycetaceae*** Nakagiri

*Hispidicarpomyces* Nakagiri (1)

***Spathulosporaceae*** Kohlm.

*Retrostium* Nakagiri & Tad Ito (1)

*Spathulospora* A.R. Caval. & T.W. Johnson (4)

***Tracyllalales*** Crous

***Tracyllaceae*** Crous

*Tracylla* (Sacc.) Tassi (3)

***Vermiculariopsiellales*** Hern.-Restr., J. Mena, Gené & Crous

***Vermiculariopsiellaceae*** Hern.-Restr., J. Mena, Gené & Crous

*Vermiculariopsiella* Bender (22)

***Sordariomycetes*** families *incertae sedis*

***Acrodictyaceae*** J.W. Xia & X.G. Zhang\*

*Acrodictys* M.B. Ellis (25)

***Junewangiaceae*** J.W. Xia & X.G. Zhang\*

*Dictyosporella* Abdel-Aziz (2)

*Junewangia* W.A. Baker & Morgan-Jones (6)

***Lautosporaceae*** Kohlm., Volkm.-Kohlm. & O.E. Erikss

*Lautospora* K. D. Hyde & E.B.G. Jones (2)

***Obryzaceae*** Körb.

*Obryzum* Wallr. (3)

***Sordariomycetes*** genera *incertae sedis*

*Acerbiella* Sacc. (4)

*Acrospormoides* Miller & G.E. Thomps. (2)

*Ameromassaria* Hara (1)

*Amphisphaerellula* Gucevič (1)

*Amphisphaerina* Höhn. (3 epithets in Index Fungorum 2020)

*Amphorulopsis* Petr. (1)

*Amylis* Speg. (1)

*Anisomycopsis* I. Hino & Katum. (1)  
*Antennopsis* R. Heim (1)\*  
*Anthostomaria* (Sacc.) Theiss. & Syd. (1)  
*Anthostomellina* L.A. Kantsch. (2)  
*Apodothina* Petr. (1)  
*Apogaeumannomyces* Matsush. (1)  
*Aquadulciospora* Fallah & Shearer (1)  
*Areolospora* S.C. Jong & E.E. Davis (2 epithets in Index Fungorum 2020)  
*Aropsichus* Kohlm. & Volkm.-Kohlm. (1)  
*Ascorhiza* Lecht.-Trinka (1)  
*Ascoyunnania* L. Cai & K.D. Hyde (1)  
*Atrogeniculata* J.S. Monteiro, Gusmão & R.F. Castañeda (1)  
*Aulospora* Speg. (1)  
*Azbukinia* Lar.N. Vassiljeva (1)  
*Bactrosphaeria* Penz. & Sacc. (1)  
*Basidiobotrys* Höhn. (1)  
*Biciliopsis* Diederich (2)  
*Bombardiastrum* Pat. (1)  
*Boothiella* Lodhi & Mirza (1)  
*Botryosporium* Corda (11)  
*Brenesiella* Syd. (1)  
*Byrsomyces* Cavalc. (1)  
*Byssotheciella* Petr. (2)  
*Caleutypa* Petr. (1)  
*Caproniella* Berl. (1)  
*Chaetoamphisphaeria* Hara (1)  
*Charonectria* Sacc. (3)  
*Ciliofusospora* Bat. & J.L. Bezerra (1)  
*Clypeoceriospora* Sousa da Câmara (1)  
*Clypeosphaerulina* Sousa da Câmara (1)  
*Cryptoascus* Petri (2)  
*Cryptomycella* Höhn. (2)  
*Cryptomycina* Höhn. (2)  
*Cucurbitopsis* Bat. & Cif. (1)  
*Curvatispora* V.V. Sarma & K.D. Hyde (1)  
*Dasysphaeria* Speg. (1)  
*Delpinoëlla* Sacc. (1)  
*Diacrochordon* Petr. (1)  
*Didymobotryum* Sacc. (6)  
*Duradens* Samuels & Rogerson (1)  
*Ellisemia* Subram. (ca. 60)  
*Esfandiaromyces* Ershad (1)  
*Fantasmomyces* Dong Hyeon Lee, Marinc., Z.W. de Beer & M.J. Wingf. (1)  
*Farrowia* D. Hawksw. (3)  
*Fassia* Dennis (1)  
*Flammispora* Pinruan, Sakay., K.D. Hyde & E.B.G. Jones (2)  
*Frondisphaeria* K.D. Hyde (2)  
*Hapsidascus* Kohlm. & Volkm.-Kohlm. (1)  
*Hassea* Zahlbr. (1)  
*Heliastrum* Petr. (1)  
*Hyaloderma* Speg. (1)  
*Hyalotiopsis* Punith. (1)

*Hydronectria* Kirschst. (1)  
*Immersisphaeria* Jaklitsch (1)  
*Iraniella* Petr. (1)  
*Konenia* Hara (1)  
*Kravtzevia* Schwartzman (1)  
*Kurssanovia* Kravtzev (1)  
*Lecythiomyces* Doweld (1)  
*Leptosacca* Syd. (1)  
*Leptosphaerella* Speg. (14 epithets in Index Fungorum 2020)  
*Mangrovispora* K.D. Hyde & Nageire (1)  
*Marisolaris* Jørg. Koch & E.B.G. Jones (1)  
*Microcyclephaeria* Bat. (1)  
*Mirannulata* Huhndorf, F.A. Fernández, A.N. Mill. & Lodge (2)  
*Mycothermus* D.O. Natvig, J.W. Taylor, A. Tsang, M.I. Hutch. & A.J. Powell ex X. Wei Wang, Houbraken & D.O. Natvig (2)  
*Natantiella* Réblová (1)  
*Naumovela* Kravtzev (2)  
*Neocryptospora* Petr. (1)  
*Neoeriomycopsis* Crous & M.J. Wingf. (1)  
*Neolamyia* Theiss. & Syd. (3)  
*Neothyridaria* Petr. (1)  
*Ophiomassaria* Jacz. (1)  
*Ophiomeliola* Starbäck (3)  
*Paoayensis* Cabanela, Jeewon & K.D. Hyde (2)  
*Paradiplococcium* Hern.-Restr., J. Mena & Gené (1)  
*Paramicrodochium* Hern.-Restr. & Crous (1)  
*Pareutypella* Y.M. Ju & J.D. Rogers (2)  
*Phialemoniopsis* Perdomo, Dania García, Gené, Cano & Guarro (6)  
*Phragmeriella* Hansf. (1)  
*Phyllocelis* Syd. (2)  
*Pleocryptospora* J. Reid & C. Booth (1)  
*Pleosphaeria* Speg. (24)  
*Pleurophragmium* Costantin (22)  
*Protocucurbitaria* Naumov (1)  
*Pulvinaria* Bon. (2)  
*Pumilus* Viala & Marsais (1)  
*Rehmiomycella* E. Müll. (1)  
*Rhamphosphaeria* Kirschst. (1)  
*Rhizophila* K.D. Hyde & E.B.G. Jones (1)  
*Rhopographella* (Henn.) Sacc. & Trotter (2)  
*Rhynchosphaeria* (Sacc.) Berl. (5)  
*Rivulicola* K.D. Hyde (3)  
*Romellina* Petr. (1)  
*Saccardoëlla* Speg. (15)  
*Sartorya* Vuill. (9 epithets in Index Fungorum 2020)  
*Scharifia* Petr. (1)  
*Scoliocarpon* Nyl. (1 epithets in Index Fungorum 2020)  
*Scotiosphaeria* Sivan. (1)  
*Selenosporella* G. Arnaud ex MacGarvie (12)  
*Servazziella* J. Reid & C. Booth (1)  
*Sporoctomorpha* J.V. Almeida & Sousa da Câmara (1)  
*Stanjehughesia* Subram. (16)



*Stearophora* L. Mangin & Viala (1)  
*Steganopycnis* Syd. & P. Syd. (1)  
*Stegophorella* Petr. (1)  
*Stellosetifera* Matsush. (1)  
*Stereosphaeria* Kirschst. (1)  
*Stomatogenella* Petr. (1)  
*Sungaiicola* Fryar & K.D. Hyde (1)  
*Synsphaeria* Bon. (4 epithets in Index Fungorum 2020)  
*Teracosphaeria* Réblová & Seifert (1)  
*Thelediella* Fink (1)  
*Thyridella* (Sacc.) Sacc. (3)  
*Thyrotheca* Kirschst. (1 epithets in Index Fungorum 2020)  
*Trichospermella* Speg. (2)  
*Trichosphaeropsis* Bat. & Nasc. (1)  
*Tulipispora* Révay & Gönczöl (1)  
*Tunstallia* Agnihotr. (3 epithets in Index Fungorum 2020)  
*Urosporella* G.F. Atk. (5)  
*Urupe* Viégas (1)  
*Vleugelia* J. Reid & C. Booth (1)  
*Xenodium* Syd. (1)  
*Zalerion* R.T. Moore & Meyers (6)

***Xylonomycetes*** Gazis & P. Chaverri  
***Symbiotaphrinales*** Baral & E. Weber  
***Symbiotaphrinaceae*** Baral & E. Weber  
*Symbiotaphrina* Kühlw. & Jurzitza ex W. Gams & Arx (17)\*

***Xylonales*** Gazis & P. Chaverri  
***Xylonaceae*** Gazis & P. Chaverri  
*Trinosporium* Crous & Decock (1)  
*Xylona* Gazis & P. Chaverri (1)

***Xylobotryomycetes*** Voglmayr & Jaklitsch  
***Xylobotryales*** Voglmayr & Jaklitsch  
***Cirrosporiaceae*** Voglmayr & Jaklitsch  
*Cirrosporium* S. Hughes (1)

***Xylobotryaceae*** Voglmayr & Jaklitsch  
*Xylobotryum* Pat. (2)

***Pezizomycotina*** orders *incertae sedis*  
***Thelocarpales*** Lücking & Lumbsch  
***Thelocarpaceae*** Zukai  
*Sarcosagium* A. Massal. (1)  
*Thelocarpon* Nyl (25)

***Veizdaeales*** Lumbsch & Lücking  
***Veizdaeaceae*** Poelt & Vězda ex J.C. David & D. Hawksw.  
*Veizdaea* Tsch.-Woess & Poelt (12)

***Pezizomycotina*** family *incertae sedis*  
***Harpidiaceae*** Vězda ex Hafellner

*Euopsis* Nyl. (2)  
*Harpidium* Körb. (3)

***Pezizomycotina*** genera *incertae sedis*

*Angatia* Syd. (5)  
*Biatoridium* J. Lahm ex Körb. (3)  
*Cyanoporina* Groenh. (1)  
*Melanophloea* P. James & Vězda (1)  
*Milospium* D. Hawksw. (4)  
*Oevstedalia* Ertz & Diederich (1)  
*Psammia* Sacc. & M. Rousseau ex E. Bommer & M. Rousseau (8)  
*Pygmaeosphaera* Etayo & Diederich (3)  
*Pyrenocollema* Reinke (1)  
*Solanella* Vaňha (1)\*  
*Wadeana* Coppins & P. James (2)

***Saccharomycotina*** O.E. Erikss. & Winka

***Saccharomycetes*** O.E. Erikss. & Winka\*

***Saccharomycetales*** Kudrjanzev

***Alloascoideaceae*** Kurtzman & Robnett

*Alloascoidea* Kurtzman & Robnett (2)

***Ascoideaceae*** J. Schröter

*Ascoidea* Bref. (4)

***Cephaloascaceae*** L.R. Batra

*Cephaloascus* Hanawa (2)

***Debaryomycetaceae*** Kurtzman & M. Suzuki

*Babjeviella* Kurtzman & M. Suzuki (1)  
*Debaryomyces* Lodder & Kreger-van Rij (15)  
*Hemisphaericaspora* Hui, Ren, Chen, Li, Zhan & Niu (2)  
*Kurtzmaniella* M.A. Lachance & W.T. Starmer (5)  
*Lodderomyces* Van der Walt (2)\*  
*Meyerozyma* Kurtzman & M. Suzuki (8)  
*Millerozyma* Kurtzman & M. Suzuki (5)  
*Priceomyces* Kurtzman & M. Suzuki (8)  
*Scheffersomyces* Kurtzman & M. Suzuki (18)  
*Schwanniomyces* Klöcker emend. M. Suzuki & Kurtzman (7)  
*Spathaspora* N.H. Nguyen, S.O. Suh & M. Blackwell (11)  
*Suhomyces* M. Blackwell & Kurtzman (26)  
*Yamadazyma* Billon-Grand (23)

***Dipodascaceae*** Engl. & E. Gilg

*Dipodascus* Lagerh. (14)  
*Galactomyces* Redhead & Malloch (5)  
*Geotrichum* Link (8)  
*Magnusiomyces* Zender (7)  
*Saprochaete* Coker & Shanor ex D.T.S. Wagner & Dawes (10)\*

***Lipomycetaceae*** E.K. Novák & Zsolt

*Dipodascopsis* Batra & P. Millner emend. Kurtzman, Albertyn & Basehoar-Powers (3)

*Kockiozyma* Jindam., Yukphan & Y. Yamada (1)  
*Limtongia* Jindam., Am-in, Yukphan & Y. Yamada (1)  
*Lipomyces* Lodder & Kreger (16)  
*Myxozyma* Van der Walt, Weijman & von Arx (12)

***Metschnikowiaceae*** T. Kamienski\*

*Clavispora* Rodr. Mir. (4)  
*Kodamaea* Y. Yamada, T. Suzuki, Matsuda & Mikata emend. Rosa, Lachance, Starmer, Barker, Bowles & Schlag-Edler (8)  
*Metschnikowia* T. Kamienski (64)

***Phaffomycetaceae*** Y. Yamada, H. Kawas., Nagats., Mikata & Tats. Seki

*Barnettozyma* Kurtzman, Robnett & Basehoar-Powers (9)  
*Cyberlindnera* Minter (27)  
*Phaffomyces* Y. Yamada (4)  
*Starmera* Y. Yamada, Higashi, Ando & Mikata (7)  
*Wickerhamomyces* Kurtzman, Robnett & Basehoar-Powers (31)

***Pichiaceae*** Zender

*Brettanomyces* Kufferath & van Laer (3)  
*Dekkera* Van der Walt (2)\*  
*Komagataella* Y. Yamada, Matsuda, Maeda & Mikata (6)  
*Kregervanrija* Kurtzman (3)  
*Kuraishia* Y. Yamada, Maeda & Mikata (9)  
*Martiniozyma* Kurtzman (2)  
*Ogataea* Y. Yamada, K. Maeda & Mikata (46)  
*Pachysolen* Boidin & Adzet (1)  
*Pichia* E.C. Hansen (27)  
*Saturnispora* Z.W. Liu & Kurtzman (21)

***Saccharomycetaceae*** G. Winter

*Citeromyces* Santa Maria (4)  
*Cyniclomyces* Van der Walt & D.B. Scott (1)  
*Eremothecium* Borzi emend. Kurtzman (5)  
*Hagleromyces* Sousa, Morais, Lachance & Rosa (1)  
*Kazachstania* Zubcova (44)  
*Kluyveromyces* Van der Walt (6)  
*Lachancea* Kurtzman (10)  
*Nakaseomyces* Kurtzman (2)  
*Naumovozya* Kurtzman (3)  
*Saccharomyces* Meyen (10)  
*Tetrapisispora* Ueda-Nishimura & K. Mikata emend. Kurtzman (9)  
*Torulaspota* Lindner (8)  
*Vanderwaltozyma* Kurtzman (4)  
*Yueomyces* Q.M. Wang, L. Wang, M. Groenewald & T. Boekhout (1)  
*Zygosaccharomyces* B.T.P. Barker (11)  
*Zygotorulaspora* Kurtzman (4)

***Saccharomycodaceae*** Kudrjanzev

*Hanseniaspora* Zikes (17)\*  
*Saccharomycodes* E.C. Hansen (2)

***Saccharomycopsidaceae*** Arx & Van der Walt

*Ambrosiozyma* Van der Walt (14)

*Saccharomycopsis* Schiønning (19)

***Trichomonascaceae*** Kurtzman & Robnett\*

*Blastobotrys* Klopotek (23)

*Diddensiella* Péter, Dlačhy & Kurtzman (1)

*Groenewaldozyma* Kurtzman (3)

*Spencermartinsiella* Péter, Dlačhy, Tornai-Lehoczki, M. Suzuki & Kurtzman (4)

*Starmerella* Rosa & Lachance (44)

*Sugiyamaella* Kurtzman & Robnett (27)

*Trichomonascus* H.S. Jackson emend. Kurtzman & Robnett (6)\*

*Wickerhamiella* Van der Walt (39)

*Zygoascus* M.T. Sm. (8)

***Trigonopsidaceae*** M.A. Lachance & C.P. Kurtzman

*Botryozyma* Shann & M.T. Sm. emend. Lachance & Kurtzman (4)\*

*Tortispora* Lachance & Kurtzman (8)

*Trigonopsis* Schachner emend. Kurtzman & Robnett (4)

***Saccharomycetales*** genera *incertae sedis*

*Aciculoconidium* D.S. King & S.C. Jong (1)

*Candida* Berkhout (316)\*

*Coccidiascus* Chatton (1)

*Conidiascus* Holterm. (1)

*Danielozyma* Kurtzman & Robnett (2)

*Deakozyma* Kurtzman & Robnett (2)

*Diutina* Khunnamwong, Lertwattanasakul, Jindam., Limtong & Lachance (10)

*Endomyces* Reess (4)

*Hyphopichia* von Arx & van der Walt (12)

*Macrorhabdus* Tomaszewski, Logan, Snowden, Kurtzman & Phalen. (1)

*Metahyphopichia* Sipiczki & Pfliegler (1)

*Middelhovenomyces* Kurtzman & Robnett (2)

*Nadsonia* Syd. (3)

*Nakazawaea* Y. Yamada, Maeda & Mikata (13)

*Oscarbrefeldia* Holterm. (1)\*

*Peterozyma* Kurtzman & Robnett (2)

*Phialoascus* Redhead & Malloch (1)

*Sporopachydermia* Rodr. Mir. (3)

*Teunomyces* Kurtzman & M. Blackwell (12)

*Wickerhamia* Soneda (1)

*Yarrowia* Van der Walt & Arx (12)

**TAPHRINOMYCOTINA** O.E. Erikss. & Winka

***Archaeorhizomycetes*** Rosling & T.Y. James

***Archaeorhizomycetales*** Rosling & T.Y. James

***Archaeorhizomycetaceae*** Rosling & T.Y. James

*Archaeorhizomyces* Rosling & T.Y. James (2)

***Neolectomycetes*** O.E. Erikss. & Winka

***Neolectales*** Landvik, O.E. Erikss., Gargas & P. Gust.

***Neolectaceae*** Redhead

*Neolecta* Speg. (3)

***Pneumocystomycetes*** O.E. Erikss. & Winka

***Pneumocystidales*** O.E. Erikss.

***Pneumocystidaceae*** O.E. Erikss.

*Pneumocystis* P. Delanoë & Delanoë (5)

***Schizosaccharomycetes*** O.E. Erikss. & Winka

***Schizosaccharomycetales*** O.E. Erikss.

***Schizosaccharomycetaceae*** Beij. ex Klöcker

*Schizosaccharomyces* Lindner (4)

***Taphrinomycetes*** O.E. Erikss. & Winka

***Taphrinales*** Gäum. & C.W. Dodge

***Protomycetaceae*** Gray

*Buerenia* M.S. Reddy & C.L. Kramer (4)

*Protomyces* Unger (ca. 10)

*Protomycopsis* Magnus (5)

*Saitoella* Goto, Sugiy., Hamam. & Komag. (2)

*Taphridium* Lagerh. & Juel ex Juel (2)

*Volkartia* Maire (1)

***Taphrinaceae*** Gäum.

*Taphrina* Fr. (ca. 95)

***Ascomycota*** families *incertae sedis*

***Aphanopsidaceae*** Printzen & Rambold

*Aphanopsis* Nyl. ex Syd. (1)

*Steinia* Körb. (3)

***Diporotheaceae*** R.K. Mibey & D. Hawksw.

*Diporothea* C.C. Gordon & C.G. Shaw (4)

***Eoterfeziaceae*** G.F. Atk.

*Acanthogymnomycetes* Udagawa & Uchiyama (1)

*Eoterfezia* G.F. Atk. (2)

***Mucomassariaceae*** Petr. & Cif.

*Mucomassaria* Petr. (1)

***Saccardiaceae*** Höhn.

*Ascolectus* Samuels & Rogerson (1)

*Cyanodiscus* E. Müll. & M.L. Farr (2)

*Henningsiella* Rehm (2)

*Phillipsiella* Cooke (7)

*Pseudodiscus* Arx & E. Müll. (1)

*Saccardia* Cooke (3)

*Schenckiella* P. Henn. (1)

***Seuratiaceae*** Vuill. ex M.E. Barr

*Seuratia* Pat. (5)

*Seuratiopsis* Woron. (1)

*Strangosporaceae* S. Stenroos, Miądl. & Lutzoni  
*Strangospora* Körb. (ca. 11)

*Ascomycota* genera *incertae sedis*

- Abropelta* B. Sutton (1)
- Acarellina* Bat. & H. Maia (1)
- Acaroconium* Kocourk. & D. Hawksw. (1)
- Acarocybe* Syd. (3)
- Acarocybella* M.B. Ellis (1)
- Acarocybellina* Subram. (1)
- Acarocybiopsis* J. Mena, A. Hern.-Gut. & Mercado (1)
- Acaropeltis* Petr. (1)
- Achoropeltis* Syd. (1)
- Acleistia* Bayl. Ell. (1)
- Acontium* Morgan (4)
- Acrodictyella* W.A. Baker & Partr. (1)
- Acrodictyopsis* P.M. Kirk (1)
- Acrodontiella* U. Braun & Scheuer (1)
- Acrophragmis* Kiffer & Reisinger (4)
- Acrospeira* Berk. & Broome (1)
- Acrostaurus* Deighton & Piroz. (1)
- Actinocladium* Ehrenb. (6)
- Actinotexis* Arx (1)
- Actinothecium* Ces. (5)
- Actinothyrium* Kunze (10)
- Acumispora* Matsush. (5)
- Agaricodochium* X.J. Liu (1)
- Agarwalomyces* R.K. Verma & Kamal (1)
- Agrabeeja* Subram. (1)
- Agyriella* Sacc. (2)
- Agyriellopsis* Höhn. (3)
- Ahmadia* Syd. (1)
- Ajrekarella* Kamat & Kalani (1)
- Alatosessilispora* K. Ando & Tubaki (1)
- Alciphila* Harmaja (1)
- Algonquinia* R.F. Castañeda & W.B. Kendr. (1)
- Allantophomoides* S.L. Wei & T.Y. Zhang (1)
- Alloneottiosporina* Nag Raj (2)
- Allophoron* Nád. (1)
- Allothyriella* Bat., Cif. & Nascim. (3)
- Allothyrina* Bat. & J.L. Bezerra (1)
- Allothyriopsis* Bat., Cif. & H. Maia (1)
- Alpakesa* Subram. & K. Ramakr. (4)
- Alpakesiopsis* Abbas, B. Sutton, Ghaffar & A. Abbas (1)
- Alveariospora* Meir. Silva, R.F. Castañeda, O.L. Pereira & R.W. Barreto (1)
- Alveophoma* Alcalde (1)
- Alysiidiopsis* B. Sutton (5)
- Amallospora* Penz. (1)
- Amblyosporium* Fresen. (4)
- Ameroconium* U. Braun & Zhurb. (1)
- Amerodiscosiella* M.L. Farr (1)
- Amerodiscosiellina* Bat. & Cavalc. (1)

*Amerosporiopsis* Petr. (1)  
*Amerosymphodula* Matsush. (1)  
*Amoenodochium* Peláez & R.F. Castañeda (1)  
*Amoenomyces* R.F. Castañeda, Saikawa & Hennebert (1)  
*Amphichaetella* Höhn. (1)  
*Amphophialis* R.F. Castañeda, W.B. Kendr. & Guarro (1)  
*Amphoropycnium* Bat. (1)  
*Ampullicephala* R.F. Castañeda, Minter & M. Stadler (1)  
*Ampulliferina* B. Sutton (2)  
*Amylogalla* Suija, Motiej. & Kantvilas (1)  
*Anabahusakala* Carmo, J.S. Monteiro, Gusmão & R.F. Castañeda (1)  
*Anacraspedodidymum* C.R. Silva, R.F. Castañeda & Gusmão (2)  
*Anaexserticlava* Santa Izabel, R.F. Castañeda & Gusmão (1)  
*Anaphysmene* Bubák (2)  
*Anarhyma* M.H. Pei & Z.W. Yuan (1)  
*Anaselenosporella* Heredia, R.F. Castañeda & R.M. Arias (2)  
*Anaseptoidium* R.F. Castañeda, Heredia & R.M. Arias (1)  
*Anaverticicladus* P.O. Costa, Malosso & R.F. Castañeda (1)  
*Ancoraspora* Mig. Rodr. (1)  
*Ancorasporella* J. Mena, Mercado & Heredia (1)  
*Angiopomopsis* Höhn. (1)  
*Angulimaya* Subram. & Lodha (1)  
*Angulospora* Sv. Nilsson (1)  
*Annelodentimyces* Matsush. (1)  
*Annelodochium* Deighton (1)  
*Annellophorella* Subram. (5)  
*Annellospormosporella* P.R. Johnst. (1)  
*Antennatula* Fr. ex F. Strauss (10)  
*Anthracoderma* Speg. (3)  
*Antimanoa* Syd. (1)  
*Antromyces* Fresen. (4)  
*Anulohypha* Cif. (1)  
*Anungitopsis* R.F. Castañeda & W.B. Kendr. (7)  
*Aoria* Cif. (1)  
*Aphanofalx* B. Sutton (2)  
*Apiocarpella* Syd. & P. Syd. (8)  
*Apiotypa* Petr. (1)  
*Apogloeum* Petr. (1)  
*Apomelasmia* Grove (8)  
*Aporellula* B. Sutton (2)  
*Aposporella* Thaxt. (1)  
*Apostrasseria* Nag Raj (2)  
*Arachnophora* Hennebert (11)  
*Arachnospora* R.F. Castañeda, Minter & Camino (1)  
*Arborillus* Munt.-Cvetk. & Gómez-Bolea (1)  
*Arborispora* K. Ando (4)  
*Arcuadendron* Sigler & J.W. Carmich. (2)  
*Ardhachandra* Subram. & Sudha (3)  
*Argentinomyces* Peña & Arambarri (1)  
*Argopericonia* B. Sutton & Pascoe (2)  
*Aristastoma* Tehon (1)  
*Arthrobotryum* Ces. (5)

*Arthrocristula* Sigler, M.T. Dunn & J.W. Carmich. (1)  
*Arthromoniliphora* S.S. Silva, Gusmão & R.F. Castañeda (1)  
*Arthrosporium* Sacc. (2)  
*Arthrowallemia* R.F. Castañeda, Dania García & Guarro (2)  
*Articulophora* C.J.K. Wang & B. Sutton (1)  
*Artocarpomyces* Subram. (1)  
*Ascochytopsis* Henn. (5)  
*Ascochytulina* Petr. (3)  
*Ascofascicula* Matsush. (6)  
*Ascomauritiana* V.M. Ranghoo & K.D. Hyde (1)  
*Ascsubramania* Rajendran (1)  
*Ashtaangam* Subram. (1)  
*Aspilaima* Bat. & H. Maia (1)  
*Astelechia* Cif. (2)  
*Asterinothyriella* Bat. & Cif. (3)  
*Asterinothyrium* Bat., Cif. & H. Maia (1)  
*Asteroconium* Syd. & P. Syd. (2)  
*Asteroglobulus* Brackel (2)  
*Asteromyces* F. Moreau & V. Moreau (1)  
*Asterophoma* D. Hawksw. (1)  
*Asteroscutula* Petr. (1)  
*Asterostomopora* Bat. & H. Maia (1)  
*Asterostomopsis* Bat., Cif. & H. Maia (1)  
*Asterostomula* Theiss. (4)  
*Asterostomulina* Bat., J.L. Bezerra & H. Maia (1)  
*Astomella* Thirum. (1)  
*Astronatelia* Bat. & H. Maia (1)  
*Atractilina* Dearn. & Barthol. (2)  
*Atractobolus* Tode (1)  
*Atrosetaphiale* Matsush. (1)  
*Atrosynnema* J.W. Xia, X.G. Zhang & Z. Li (1)  
*Aurospheeria* Sun J. Lee, Strobel, Eisenman, Geary, P.N. Vargas & S.A. Strobel (1)  
*Avesicladiella* W.P. Wu, B. Sutton & Gange (2)  
*Avettaea* Petr. & Syd. (3)  
*Bacillopeltis* Bat. (1)  
*Bactridium* Kunze (15)  
*Bactrodesmiella* M.B. Ellis (2)  
*Baculospora* Zukal (1)  
*Badarisama* Kunwar, J.B. Manandhar & J.B. Sinclair (1)  
*Bahuchashaka* Subram. (1)  
*Bahugada* K.A. Reddy & Vasant Rao (2)  
*Bahukalasa* Subram. & Chandrash. (1)  
*Balaniopsis* P.M. Kirk (4)  
*Balanium* Wallr. (1)  
*Barbarosporina* Kirulis (1)  
*Barnettella* D. Rao & P. Rag. Rao (1)  
*Basauxia* Subram. (1)  
*Batistina* Peres (1)  
*Batistospora* J.L. Bezerra & M.M.P. Herrera (1)  
*Beauveriphora* Matsush. (1)  
*Beccopycnidium* F. Stevens (1)  
*Beejadwaya* Subram. (1)



*Belemnospora* P.M. Kirk (7)  
*Bellulicauda* B. Sutton (2)  
*Beltramono* Rashmi Dubey, A.K. Pandey bis & Manohar. (1)  
*Beltraniomyces* Manohar., D.K. Agarwal & Rao (1)  
*Beniowskia* Racib. (4)  
*Benjpalia* Subram. & Bhat (1)  
*Berggrenia* Cooke (2)  
*Bhadradriella* Nagaraju, Kunwar & Manohar. (1)  
*Bhadradriomyces* Sureshk., Manohar. & Kunwar (1)  
*Bharatheeya* D'Souza & Bhat (3)  
*Bhatia* W.A. Baker & Morgan-Jones (2)  
*Bibanasiella* R.F. Castañeda & W.B. Kendr. (1)  
*Bicoloromyces* Heuchert, U. Braun & D. Hawksw. (1)  
*Biflagellospora* Matsush. (1)  
*Biflagellosporella* Matsush. (1)  
*Biflua* Jørgen Koch & E.B.G. Jones (1)  
*Bimeris* Petr. (1)  
*Bioconiosporium* Bat. & J.L. Bezerra (2)  
*Biophomopsis* Petr. (3)  
*Bisbyopeltis* Bat. & A.F. Vital (1)  
*Bispora* Corda (31)  
*Bisseomyces* R.F. Castañeda (1)  
*Blastocatena* Subram. & Bhat (2)  
*Blastodictys* M.B. Ellis (1)  
*Blastofusarioides* Matsush. (1)  
*Blastophorella* Boedijn (1)  
*Blastophragma* Subram. (4)  
*Blennoria* Moug. & Fr. (4)  
*Blennoriopsis* Petr. (1)  
*Bleptosporium* Steyaert (4)  
*Blodgettia* Harv. (2)  
*Bostrichonema* Ces. (4)  
*Botryoderma* Papendorf & H.P. Upadhyay (4)  
*Botryodiplodina* Dias & Sousa da Câmara (1)  
*Botryomonilia* Goos & Piroz. (1)  
*Botryostroma* Höhn. (2)  
*Brachycephala* J.S. Monteiro, Gusmão & R.F. Castañeda (1)  
*Brachydesmiella* G. Arnaud ex S. Hughes (8)  
*Brachysporiellina* Subram. & Bhat (2)  
*Brachysporiopsis* Yanna, W.H. Ho & K.D. Hyde (1)  
*Braunomyces* V.A. Melnik & Crous (1)  
*Brefeldiopycnis* Petr. & Cif. (1)  
*Brencklea* Petrak (1)  
*Brevicatenospora* R.F. Castañeda, Minter & Saikawa (1)  
*Briosia* Cavara (6)  
*Brycekendrickia* Nag Raj (1)  
*Bryophytomyces* Cif. (1)  
*Bulbilopycnis* Matsush. (1)  
*Bulbocatenospora* R.F. Castañeda & Iturr. (1)  
*Bullaserpens* Bat., J.L. Bezerra & Cavalc. (1)  
*Cacumisporium* Preuss (9)

*Caeruleoconidia* Zhurb. & Pino-Bodas (= *Caeruleoconidia* Zhurb. & Diederich 2015 nom. inv.) (2)  
*Calcarispora* Marvanová & Marvan (1)  
*Calceispora* Matsush. (2)  
*Callistospora* Petr. (1)  
*Calocline* Syd. (1)  
*Calongeomyces* D. Hawksw. & Etayo (1)  
*Camaroglobulus* Speer (1)  
*Camaropycnis* E.K. Cash (1)  
*Camarosporellum* Tassi (1)  
*Camarosporiopsis* Abbas, B. Sutton & Ghaffar (1)  
*Camposporidium* Nawawi & Kuthub. (3)  
*Candelabrum* Beverw. (7)  
*Candelosynnema* K.D. Hyde & Seifert (1)  
*Capitrostrum* Bat. (1)  
*Capnocheirides* J.L. Crane & S. Hughes (1)  
*Capnofrasera* S. Hughes (1)  
*Capsicumyces* Gamundí et al. (1)  
*Carnegieispora* Etayo & F. Berger (1)  
*Carnia* Bat. (1)  
*Carrismyces* R.F. Castañeda & Heredia (1)  
*Casaresia* Gonz. Frag. (1)  
*Castanedaea* W.A. Baker & Partr. (1)  
*Catenocuneiphora* Matsush. (1)  
*Catenophora* Luttr. (3)  
*Catenophoropsis* Nag Raj & W.B. Kendr. (1)  
*Catenosubulispora* Matsush. (1)  
*Catenosynnema* Kodsueb, K.D. Hyde & W.H. Ho (1)  
*Catenulaster* Bat. & C.A.A. Costa (1)  
*Catinopeltis* Bat. & C.A.A. Costa (1)  
*Cecidiomyces* U. Braun & Zhurb. (1)  
*Ceeveesubramaniomyces* J. Pratibha, K.D. Hyde & Bhat (1)  
*Ceratocladium* Corda (2)  
*Ceratophorum* Sacc. (2)  
*Ceratopycnis* Höhn. (2)  
*Ceratosporella* Höhn. (19)  
*Ceratosporium* Schwein. (11)  
*Ceuthodiplospora* Died. (1)  
*Ceuthosira* Petr. (1)  
*Ceuthosporella* Petr. & Syd. (1)  
*Chaetendophragma* Matsush. (7)  
*Chaetoblastophorum* Morgan-Jones (1)  
*Chaetochalara* B. Sutton & Piroz. (7)  
*Chaetocytostroma* Petr. (1)  
*Chaetodiplis* Clem. (1)  
*Chaetodiplodina* Speg. (2)  
*Chaetopeltaster* Katum. (1)  
*Chaetophiophoma* Speg. (1)  
*Chaetoplaca* Syd. & P. Syd. (1)  
*Chaetopsis* Grev. (7)  
*Chaetopyrena* Pass. (2)  
*Chaetoseptoria* Tehon. (1)

*Chalarodendron* C.J.K. Wang & B. Sutton (1)  
*Chalarodes* McKenzie (2)  
*Chantransiopsis* Thaxt. (3)  
*Characonidia* Bat. & Cavalc. (1)  
*Charomyces* Seifert (2)  
*Chasakopama* Manohar., Bagyan., N.K. Rao & Kunwar (1)  
*Cheilaria* Lib. (1)  
*Cheiroidea* W.A. Baker & Morgan-Jones (1)  
*Cheiromycella* Höhn. (3)  
*Cheiromyceopsis* Mercado & J. Mena (1)  
*Cheiromyces* Berk. & M.A. Curtis (6)  
*Cheiropolyschema* Matsush. (2)  
*Chiastospora* Riess (1)  
*Chithramia* Nag Raj (1)  
*Chlamydopsis* Hol.-Jech. & R.F. Castañeda (1)  
*Choanatiara* DiCosmo (2)  
*Choreospora* Constant. & R. Sant. (1)  
*Chrysachne* Cif. (2)  
*Chrysalidopsis* Steyaert (1)  
*Chryseidea* Onofri (1)  
*Ciferria* Gonz. Frag. (1)  
*Ciferrina* Petr. (1)  
*Ciferriopeltis* Bat. & H. Maia (1)  
*Ciferrioxyphium* Bat. & H. Maia (2)  
*Ciliochora* Höhn. (2)  
*Ciliophora* Petr. (2)  
*Ciliophorella* Petr. (2)  
*Ciliosporella* Petr. (2)  
*Circinoconiopsis* A. Hern.-Gut. (1)  
*Circinoconis* Boedijn (1)  
*Cissococcomyces* Brain (1)  
*Civisubramaniana* Vittal & Dorai (2)  
*Cladoconidium* Bandoni & Tubaki (1)  
*Cladoniicola* Diederich, van den Boom & Aptroot (2)  
*Cladosphaera* Dumort. (1)  
*Cladosporiopsis* S.C. Ren & X.G. Zhang (1)  
*Clasteropycnis* Bat. & Cavalc. (1)  
*Clathroconium* Samson & H.C. Evans (2)  
*Clauzadeomyces* Diederich (1)  
*Clavariana* Nawawi (1)  
*Cleistocystis* Sousa da Câmara (1)  
*Cleistonium* Speer (1)  
*Cleistophoma* Petr. & Syd. (2)  
*Clypeochorella* Petr. (1)  
*Clypeolum* Speg. (8)  
*Clypeopatella* Petr. (1)  
*Clypeophialophora* Bat. & Peres (1)  
*Clypeopycnis* Petr. (3)  
*Clypeoseptoria* F. Stevens & P.A. Young (3)  
*Clypeostagonospora* Punith. (1)  
*Coccogloeum* Petr. (1)  
*Codonmyces* Calat. & Etayo (1)

*Colemaniella* Agnihothr. (1)  
*Coleodictyospora* Charles (2)  
*Coleoseptoria* Petr. (1)  
*Colispora* Marvanová (3)  
*Colletoconis* de Hoog & Aa (1)  
*Colletosporium* Link (1)  
*Collostroma* Petr. (1)  
*Columnodomus* Petr. (1)  
*Columnothyrium* Bubák (1)  
*Comatospora* Piroz. & Shoemaker (1)  
*Comocephalum* Syd. (1)  
*Complexipes* C. Walker (2)  
*Condylospora* Nawawi (4)  
*Coniambigua* Etayo & Diederich (1)  
*Conioscyphopsis* Goh & K.D. Hyde (1)  
*Coniothyria* Syd. (1)  
*Conjunctospora* Udagawa & Uchiy. (1)  
*Conostoma* Bat. & J.L. Bezerra (2)  
*Conostroma* Moesz (3)  
*Consetiella* Hol.-Jech. & Mercado (1)  
*Coremiella* Bubák & K. Krieg. (1)  
*Cornucopiella* Höhn. (2)  
*Cornutispora* Piroz. (9)  
*Cornutostilbe* Seifert (1)  
*Coronospora* M.B. Ellis (4)  
*Corynecercospora* V.K. Pal, M. Akhtar, N. Ahmad, Kamal & D.K. Agarwal (1)  
*Coryneliella* Har. & P. Karst. (1)  
*Corynesporella* Munjal & H.S. Gill (11)  
*Corynesporina* Subram. (1)  
*Corynesporopsis* P.M. Kirk (16)  
*Costanetia* Bat. & J.L. Bezerra (1)  
*Crandallia* Ellis & Sacc. (4)  
*Craneomyces* Morgan-Jones, R.C. Sinclair & Eicker (1)  
*Craspedodidimella* F.R. Barbosa, R.F. Castañeda & Gusmão (1)\*  
*Creodiplodina* Petr. (1)  
*Creonecte* Petr. (1)  
*Creoseptoria* Petr. (1)  
*Creothyriella* Bat. & C.A.A. Costa (1)  
*Cribropeltis* Tehon (1)  
*Crinigera* I. Schmidt (1)  
*Crousobrauniella* Sh. Kumar, Raghv. Singh, D.P. Singh & Kamal (1)  
*Crustodiplodina* Punith. (1)  
*Cryptoceuthospora* Petr. (2)  
*Cryptocoryneopsis* B. Sutton (1)  
*Cryptosporium* Kunze (25)  
*Cryptumbellata* Udagawa & Uchiy. (1)  
*Ctenosporium* R. Kirschner (1)  
*Cubasina* R.F. Castañeda (2)  
*Culicidospora* R.H. Petersen (2)  
*Culicinomyces* Couch, Romney & B. Rao (3)  
*Curucispora* Matsush. (3)  
*Curvulariopsis* M.B. Ellis (1)

*Cyanopatella* Petr. (1)  
*Cyanopyrenia* Harada (1)  
*Cyclomarsonina* Petr. (1)  
*Cylindrogloeum* Petr. (1)  
*Cylindromyces* Manohar., D.K. Agarwal & N.K. Rao (1)  
*Cylindrothyrium* Maire (1)  
*Cylindroxylum* Bat. & Cif. (1)  
*Cyrtidium* Vain (1)  
*Cyrtidula* Minks (ca. 5)  
*Cyrtopsis* Vain. (1)  
*Cystodium* Fée (1)  
*Cystotricha* Berk. & Broome (1)  
*Cytodiscula* Petr. (1)  
*Cytogloeum* Petr. (1)  
*Cytonaema* Höhn. (2)  
*Cytoplacosphaeria* Petr. (2)  
*Cytosphaera* Died. (2)  
*Cytosporella* Sacc. (32)  
*Cyttariella* Palm (1)  
*Dactylifera* Alcorn (1)  
*Dactylosporium* Harz (2)  
*Dasysticta* Speg. (2)  
*Davisiella* Petr. (2)  
*Dearnessia* Bubák (1)  
*Deichmannia* Alstrup & D. Hawksw. (1)  
*Delortia* Pat. & Gaillard (3)  
*Dendrodomus* Bubák (1)  
*Dendrographiella* Agnihotr. (1)  
*Dendrographium* Masee (8)  
*Dendrospora* Ingold (10)  
*Dendrosporium* Plakidas & Edgerton ex J.L. Crane (2)  
*Dendryphiosphaera* Lunghini & Rambelli (4)  
*Dennisographium* Rifai (2)  
*Denticularia* Deighton (7)  
*Dentocircinomyces* R.F. Castañeda & W.B. Kendr. (1)  
*Descalsia* A. Roldán & Honrubia (1)  
*Desertella* Mouch. (2)  
*Desmidiospora* Thaxt. (3)  
*Dexhowardia* J.J. Taylor (1)  
*Diaboliumbilicus* I. Hino & Katum. (1)  
*Diademospora* B.E. Söderstr. & Bååth (1)  
*Diarimella* B. Sutton (3)  
*Dichelostroma* Bat. & Peres (1)  
*Dicholobodigitus* G.P. White & Illman (1)  
*Dichotomophthoropsis* M.B. Ellis (2)  
*Dichotophora* Whitton, K.D. Hyde & McKenzie (2)  
*Dictyoceratosporella* Y.R. Ma & X.G. Zhang (3)\*  
*Dictyodesmium* S. Hughes (4)  
*Dictyophrynella* Bat. & Cavalc. (1)  
*Dictyopolyschema* M.B. Ellis (1)  
*Dictyorostrella* U. Braun (1)  
*Dictyospiropes* M.B. Ellis (1)

*Dictyotrichocladium* Fiuza, Gusmão & R.F. Castañeda (1)  
*Didymochaetina* Bat. & J.L. Bezerra (1)  
*Didymochora* Höhn. (1)  
*Didymopsis* Sacc. & Marchal (5)  
*Didymosporina* Höhn. (1)  
*Diedickeia* Syd. & P. Syd. (3)  
*Digicatenosporium* S.M. Leão, Gusmão & R.F. Castañeda (1)  
*Digitodochium* Tubaki & Kubono (1)  
*Digitopodium* U. Braun et al. (1)  
*Digitoramispora* R.F. Castañeda & W.B. Kendr. (4)  
*Dimastigosporium* Faurel & Schotter (2)  
*Diplocladiella* G. Arnaud ex M.B. Ellis (8)  
*Diplodinis* Clem. (1)  
*Diplodinula* Tassi (1)  
*Diploplenodomus* Died. (2)  
*Diplosporonema* Höhn. (1)  
*Diplozythiella* Died. (1)  
*Dipyrgis* Clem. (1)  
*Discogloeum* Petr. (1)  
*Discomycetoidea* Matsush. (1)  
*Discosiellina* Subram. & K.R.C. Reddy (1)  
*Discosporina* Höhn. (1)  
*Discotheciella* Syd. & P. Syd (1)  
*Discozythia* Petr. (1)  
*Dissitimurus* E.G. Simmons, McGinnis & Rinaldi (1)  
*Distophragmia* R.F. Castañeda, S.M. Leão & Gusmão (1)  
*Ditangifibula* G.C. Adams (1)  
*Domingoella* Petr. & Cif. (4)  
*Dothideodiplodia* Murashk. (1)  
*Dothioropsis* Riedl (1)  
*Drepanospora* Berk. & M.A. Curtis (1)  
*Drudeola* Kuntze (1)  
*Drumopama* Subram. (1)  
*Dryosphaera* Jørg. Koch & E.B.G. Jones (3)  
*Dualomyces* Matsush. (2)  
*Dwayabeeja* Subram. (3)  
*Dwayaloma* Subram. (1)  
*Dwayalomella* Brisson, Piroz. & Pauzé (1)  
*Dwibahubeeja* N. Srivast., A.K. Srivast. & Kamal (1)  
*Dwibeeja* Subram. (1)  
*Dwiroopella* Subram. & Muthumary (1)  
*Ebollia* Minter & Caine (1)  
*Echinocatena* R. Campb. & B. Sutton (1)  
*Echinochondrium* Samson & Aa (1)  
*Echinoconidiophorum* Pereira-Carv. & Dianese (1)  
*Eiona* Kohlm. (1)  
*Elachopeltella* Bat. & Cavalc. (2)  
*Elattopycnis* Bat. & Cavalc. (1)  
*Elegantimyces* Goh, C.K.M. Tsui & K.D. Hyde (1)  
*Elletevera* Deighton (2)  
*Ellisembiopsis* T.S. Santa Izabel & Gusmão (2)  
*Ellismarsporium* R.F. Castañeda & X.G. Zhang (7)

*Elotespora* R.F. Castañeda & Heredia (1)  
*Embryonispora* G.Z. Zhao (1)  
*Enantioptera* Descals (2)  
*Endobotrya* Berk. & M.A. Curtis (1)  
*Endobotryella* Höhn. (1)  
*Endocolium* Syd. (1)  
*Endoconospora* Gjaerum (2)  
*Endocoryneum* Petr. (3)  
*Endogenospora* R.F. Castañeda, O. Morillo & Minter (1)  
*Endomelanconium* Petr. (4)  
*Endophragmiopsis* M.B. Ellis (2)  
*Endoplacodium* Petr. (1)  
*Endoramularia* Petr. (1)  
*Endosporoideus* W.H. Ho, Yanna, K.D. Hyde & Goh (1)  
*Endozythia* Petr. (1)  
*Enerthidium* Syd. (1)  
*Engelhardtiella* A. Funk (1)  
*Enridescalsia* R.F. Castañeda & Guarro (1)  
*Enthallopycnidium* F. Stevens (1)  
*Entoderma* Hanula, Andreadis & M. Blackw. (1)  
*Epaphroconidia* Calat. & V. Atienza (1)  
*Ephelidium* C.W. Dodge & E.D. Rudolph (1)  
*Epiclinium* Fr. (2)  
*Epicoccospora* Budathoki & S.K. Singh (2)  
*Episporogoniella* U. Braun (1)  
*Epistigme* Syd. (2)  
*Epithyrium* (Sacc.) Trotter (2)  
*Eriocercospora* Deighton (3)  
*Eriocercosporella* Rak. Kumar, A.N. Rai & Kamal ex U. Braun (2)  
*Eriospora* Berk. & Broome (1)  
*Erispora* Pat. (1)  
*Esteya* J.Y. Liou, J.Y. Shih & Tzean (1)  
*Evanidomus* Caball. (1)  
*Everhartia* Sacc. & Ellis (6)  
*Everniicola* D. Hawksw. (1)  
*Eversia* J.L. Crane & Schokn. (2)  
*Excipularia* Sacc. (2)  
*Exophoma* Weedon (1)  
*Exosporella* Höhn. (1)  
*Exosporodiella* Ganie, Azam & A.H. Wani (1)  
*Fairmaniella* Petr. & Syd. (1)  
*Farriolla* Norman (1)  
*Favostroma* B. Sutton & E.M. Davison (1)  
*Feltgeniomyces* Diederich (4)  
*Fenestroconidia* Calat. & Etayo (1)  
*Fissuricella* Pore, D'Amatao & Ajello (1)  
*Flabellocladia* Nawawi (2)  
*Flabellospora* Alas. (6)  
*Flosculomyces* B. Sutton (2)  
*Frigidispora* K.D. Hyde & Goh (1)  
*Fujimyces* Minter & Caine (2)  
*Fuligomyces* Morgan-Jones & Kamal (4)

*Fumagopsis* Speg. (2)  
*Furcaspora* Bonar (2)  
*Fusamen* (Sacc.) P. Karst. (2)  
*Fuscophialis* B. Sutton (4)  
*Fusticeps* J. Webster & R.A. Davey (5)  
*Gaeumanniella* Petr. (1)  
*Gallaicolichen* Serux. & Lücking (1)  
*Gampsonema* Nag Raj (1)  
*Gangliophora* Subram. (1)  
*Gangliostilbe* Subram. & Vittal (5)  
*Garnaudia* Borowska (3)  
*Gaubaea* Petr. (2)  
*Gelatinocrinis* Matsush. (1)  
*Gelatinopycnis* Dyko & B. Sutton (1)  
*Geminoarcus* K. Ando (3)  
*Gemmulina* Descals & Marvanová (1)  
*Gilmaniella* G.L. Barron (9)  
*Glaphyriopsis* B. Sutton & Pascoe (2)  
*Glioannellodochium* Matsush. (1)  
*Glioblastocladium* Matsush. (1)  
*Globoconidiopsis* G.F. Sepúlveda, Pereira-Carv. & Dianese (1)  
*Globoconidium* G.F. Sepúlveda, Pereira-Carv. & Dianese (1)  
*Gloeocoryneum* Weindlm. (3)  
*Gloeodes* Colby (1)  
*Gloeosporiella* Cavara (1)  
*Gloiosphaera* Höhn. (2)  
*Glutinium* Fr. (2)  
*Goidanichiella* G.L. Barron ex W. Gams (5)  
*Gonatobotryum* Sacc. (4)  
*Goniopila* Marvanová & Descals (1)  
*Goosiella* Morgan-Jones, Kamal & R.K. Verma (1)  
*Goosomyces* N.K. Rao & Manohar. (2)  
*Grallomyces* F. Stevens (1)  
*Graphiothecium* Fuckel (6)  
*Groveolopsis* Boedijn (6)  
*Guarroa* M. Calduch, Gené, Heredia & R.F. Castañeda (1)  
*Guedea* Rambelli & Bartoli (3)  
*Guelichia* Speg. (6)  
*Gymnoxyphium* Cif., Bat. & I.J. Araújo (6)  
*Gyrophthorus* Hafellner & Sancho (3)  
*Hadronema* Syd. & P. Syd. (4)  
*Hadrosporium* Syd. (2)  
*Halysiomyces* E.G. Simmons (1)  
*Hansfordiopeltis* Bat. & C.A.A. Costa (5)  
*Hansfordiopeltopsis* M.L. Farr (1)  
*Hapalosphaeria* Syd. (1)  
*Haplariopsis* Oudem. (2)  
*Haplobasidion* Erikss. (3)  
*Haplolepis* Syd. (3)  
*Haptocara* Drechsler (1)  
*Harmoniella* V.N. Boriss. (2)\*  
*Harpographium* Sacc. (5)



*Harpostroma* Höhn. (1)  
*Hawksworthiana* U. Braun (4)  
*Heimiodora* Nicot (1)  
*Helensiella* Minter, R.F. Castañeda & Heredia (1)  
*Helhonia* B. Sutton (1)  
*Helicofilia* Matsush. (2)  
*Helicogoosia* Hol.-Jech. (1)  
*Helicominopsis* Deighton (2)  
*Helicorhoidion* S. Hughes (6)  
*Helicosingula* P.S. van Wyk, Marasas, Baard & Knox-Dav. (1)  
*Helicothyrium* I. Hino & Katum. (1)  
*Helicoubisia* Lunghini & Rambelli (1)  
*Heliscella* Marvanová (2)  
*Heliscina* Marvanová (2)  
*Helminthosporiomyces* G.F. Sepúlveda, Pereira-Carv. & Dianese (1)  
*Helochora* Sherwood (1)  
*Hemicorynesporella* Subram. (1)  
*Hemidothis* Syd. & P. Syd. (1)  
*Hemisphaeropsis* Petr. (1)  
*Hendersoniella* Tassi (1)  
*Hendersonina* E.J. Butler (1)  
*Hendersoniopsis* Höhn. (1)  
*Hendersonula* Speg. (20)  
*Hendersonulina* Petr. (1)  
*Henfellra* Halici, D. Hawksw., Z. Kocak. & M. Kocak (1)  
*Henicospora* P.M. Kirk & B. Sutton (6)  
*Herposira* Syd. (1)  
*Herreromyces* R.F. Castañeda & W.B. Kendr. (1)  
*Heterocephalum* Thaxt. (2)  
*Heterosporiopsis* Petr. (1)  
*Heuflera* Bail (1)  
*Hexacladium* D.L. Olivier (1)  
*Himantia* Pers. (4)  
*Hinoa* Hara & I. Hino (2)  
*Hirudinaria* Ces. (2)  
*Hobsoniopsis* D. Hawksw. (1)  
*Hoehneliella* Bres. & Sacc. (2)  
*Holubovaea* Mercado (2)  
*Homalopeltis* Bat. & Valle (1)  
*Hoornsmania* Crous (1)  
*Hormiactis* Preuss (5)  
*Hormiscioideus* M. Blackw. & Kimbr. (1)  
*Hormocephalum* Syd. (1)  
*Hormographis* Guarro, Punsola & Arx (1)  
*Hughesinia* J.C. Lindq. & Gamundí (3)  
*Hyalobelemnospora* Matsush. (1)  
*Hyalocamposporium* Révay & J. Gönczöl (4)  
*Hyalocephalotrichum* Nagaraju, Kunwar, Sureshk. & Manohar. (1)  
*Hyalocladium* Mustafa (1)  
*Hyalocylindrophora* J.L. Crane & Dumont (3)  
*Hyalodermella* Speg. (1)  
*Hyalodictyum* Woron. (1)

*Hyalohelicomina* T. Yokoy. (1)  
*Hyalopleiochaeta* R.F. Castañeda, Guarro & Cano (1)  
*Hyalopyrenia* H. Harada (1)  
*Hyalosynnema* Matsush. (1)  
*Hyalothyridium* Tassi (1)  
*Hydrometrospora* J. Gönczöl & Révay (1)  
*Hymenella* Fr. (11)  
*Hymeniopeltis* Bat. (3)  
*Hymenobactron* (Sacc.) Höhn.  
*Hymenobia* Nyl. (1)  
*Hymenopsis* Sacc. (13)  
*Hyphodiscosia* Lodha & K.R.C. Reddy (5)  
*Hyphodiscosoides* Matsush. (1)  
*Hyphopolynema* Nag Raj (6)  
*Hyphostereum* Pat. (1)  
*Hyphothyrium* B. Sutton & Pascoe (1)  
*Hyphozyma* de Hoog & M.T. Sm. (4)  
*Hypnotheca* Tommerup (1)  
*Hypocline* Syd. (1)  
*Hypodermina* Höhn. (1)  
*Hypogloeum* Petr. (1)  
*Hypotrachynicola* Etayo (1)  
*Hysteridium* P. Karst. (1)  
*Hysterodiscula* Petr. (1)  
*Hysteropycnis* Hilitzer (1)  
*Ialomitzia* Gruia (1)  
*Idiocercus* B. Sutton (2)  
*Igneocumulus* A.W. Ramaley (10)  
*Imicles* Shoemaker & Hambl. (6)  
*Impudentia* Vujanović (1)  
*Inesiosporium* R.F. Castañeda & W. Gams (2)  
*Inifatiella* R.F. Castañeda (1)  
*Intercalarispora* J.L. Crane & Schokn. (1)  
*Intralichen* D. Hawksw. & M.S. Cole (4)\*  
*Ionophragmium* Peres (1)  
*Irpicomycetes* Deighton (3)  
*Isariella* Henn. (2)  
*Ischnostroma* Syd. & P. Syd. (1)  
*Isthmoconidium* Etayo & Fr. Berger (1)  
*Isthmolongispora* Matsush. (11)  
*Isthmophragmospora* Kuthub. & Nawawi (2)  
*Isthmotricladia* Matsush. (3)  
*Ityorhoptrum* P.M. Kirk (4)  
*Iyengarina* Subram. (3)  
*Jahniella* Petr. (3)  
*Javonarxia* Subram. (2)  
*Jayarambhatia* J. Pratibha (1)  
*Jerainum* Nawawi & Kuthub. (1)  
*Jubispora* B. Sutton & H.J. Swart (1)  
*Junctospora* Minter & Hol.-Jech. (1)  
*Kalamarospora* G. Delgado (1)  
*Kalchbrenneriella* Diederich & M.S. Christ. (1)

*Kaleidosporium* Van Warmelo & B. Sutton (1)  
*Kamatella* Anahosur (1)  
*Kamatia* V.G. Rao & Subhedar (1)  
*Kameshwaromyces* Kamal, R.K. Verma & Morgan-Jones (2)  
*Katherinomyces* Khodos. (1)  
*Keissleriomyces* D. Hawksw. (1)  
*Kendrickiella* K. Jacobs & M.J. Wingf. (1)  
*Ketubakia* Kamat, Varghese & V.G. Rao (1)  
*Kiliophora* Kuthub. & Nawawi (3)  
*Kionocephala* P.M. Kirk (1)  
*Kmetia* Bres. & Sacc. (1)  
*Kmetiopsis* Bat. & Peres (1)  
*Knemiothyrium* Bat. & J.L. Bezerra (1)  
*Kodonospora* K. Ando (1)  
*Kolletes* Kohlm. & Volkm.-Kohlm. (1)  
*Kontospora* A. Roldán et al. (1)  
*Korunomyces* Hodges & F.A. Ferreira (3)  
*Kostermansinda* Rifai (4)  
*Kostermansindiopsis* R.F. Castañeda (1)  
*Kramabeeja* G.V. Rao & K.A. Reddy (1)  
*Kramasamuha* Subram. & Vittal (1)  
*Kreiseliella* Braun (1)  
*Kumanasamuha* P. Rag. Rao & D. Rao (5)  
*Kutilakesa* Subram. (2)  
*Kyphophora* B. Sutton (1)  
*Lacellina* Sacc. (3)  
*Lacellinopsis* Subram. (3)  
*Laciniocladium* Petri (1)  
*Lagenomyces* Cavalc. & A.A. Silva (1)  
*Lambdasporium* Matsush. (3)  
*Lambinonia* Sérus. & Diederich (1)  
*Laocoön* J.C. David (1)  
*Lappodochium* Matsush. (1)  
*Lasiodiplodiella* Zambett. (3)  
*Lasiothyrium* Syd. & P. Syd. (1)  
*Lasmeniella* Petr. & Syd. (13)  
*Latericonis* G.V. Rao, K.A. Reddy & de Hoog (1)  
*Lateriramulosa* Matsush. (5)  
*Laterispora* Uecker, W.A. Ayers & P.B. Adams (1)  
*Lawalreea* Diederich (1)  
*Lecaniocola* Brain (1)  
*Lecanostictopsis* B. Sutton & Crous (4)  
*Leeina* Petr. (1)  
*Leightoniomyces* D. Hawksw. & B. Sutton (2)  
*Lembuncula* Cif. (1)  
*Lemkea* Morgan-Jones & R.C. Sinclair (1)  
*Lepisticola* W. Gams (1)  
*Leprieurinella* Bat. & H. Maia (1)  
*Leptascospora* Speg. (1)  
*Leptochlamys* Died. (1)  
*Leptodermella* Höhn. (1)  
*Leptophyllosticta* I.E. Brezhnev (2)

*Leptostromella* (Sacc.) Sacc. (2)  
*Leptothyrella* Sacc. (10)  
*Leptothyrina* Höhn. (1)  
*Leptothyrium* Kunze (2)  
*Leucoconiella* Bat., H. Maia & Peres (1)  
*Leucoconis* Theiss. & Syd. (1)  
*Leucodochium* Syd. & P. Syd. (1)  
*Leuliisinea* Matsush. (2)  
*Lichenobactridium* Diederich & Etayo (1)  
*Lichenohendersonia* Calat. & Etayo (3)  
*Lichenopeziza* Zúkal (1)  
*Lichenophoma* Keissl. (2)  
*Lichenopuccinia* D. Hawksw. & Hafellner (1)  
*Lichenostella* Calat. & Etayo (1)  
*Linkosia* A. Hern. Gut. & B. Sutton (12)  
*Linochorella* Syd. & P. Syd. (1)  
*Linodochium* Höhn. (5)  
*Listeromyces* Penz. & Sacc. (1)  
*Lithopythium* Bornet & Flahault (3)  
*Lobatopedis* P.M. Kirk (5)  
*Loliomyces* Maire (1)  
*Lomaantha* Subram. (3)  
*Lomachashaka* Subram. (5)  
*Ludwigomyces* Kirschst. (1)  
*Luxuriomyces* R.F. Castañeda (1)  
*Luzfridiella* R.F. Castañeda & W.B. Kendr. (1)  
*Lylea* Morgan-Jones (6)  
*Lysotheca* Cif. (6)  
*Mackenziella* Yanna & K.D. Hyde (1)  
*Macroallantina* Speer (1)  
*Macrodiplodia* Sacc. (2)  
*Macrotrichum* Grev. (2)  
*Magmopsis* Nyl. (1)  
*Mahabalella* B. Sutton & S.D. Patil (4)  
*Manginella* Bat. & H. Maia (2)  
*Mapletonia* B. Sutton (1)  
*Margarinomyces* Laxa (1 *fide* Kirk et al. 2008)  
*Martinellisia* V.G. Rao & Varghese (1)  
*Massalongina* Bubák (2)  
*Matsushimiella* R.F. Castañeda & Heredia (2)  
*Matsushimomyces* V.G. Rao & Varghese (2)  
*Medusamyces* G.L. Barron & Szijarto (1)  
*Megalodochium* Deighton (4)  
*Megaloseptoria* Naumov (1)  
*Melanocephala* S. Hughes (5)  
*Melanophoma* Papendorf & J.W. du Toit (1)  
*Melophia* Sacc. (4)  
*Menidochium* R.F. Castañeda & W.B. Kendr. (1)  
*Mercadomyces* J. Mena (1)  
*Merismella* Syd. (6)  
*Metadiplodia* Syd. (40)  
*Metazythia* Petr. (1)

*Metazythiopsis* M. Morelet (1)  
*Microblastosporon* Cif. (1)  
*Microclava* F. Stevens (5)  
*Microdiscula* Höhn. (2)  
*Microdothiorella* C.A.A. Costa & Sousa da Câmara (1)  
*Microhendersonula* Dias & Sousa da Câmara (1)  
*Micromastia* Speg. (2)  
*Microperella* Höhn. (1)  
*Micropustulomyces* R.W. Barreto (1)  
*Microtyle* Speg. (1)  
*Microxyphiella* Speg. (15)  
*Microxyphiopsis* Bat. (2)  
*Mindoa* Petr. (2)  
*Minimidochium* B. Sutton (8)  
*Minteriella* Heredia, R.F. Castañeda & R.M. Arias (1)  
*Minutophoma* D. Hawksw. (1)  
*Mirandina* G. Arnaud ex Matsush. (ca. 10)  
*Miricatena* Punith. & Spooner (2)  
*Mirimyces* Nag Raj (1)  
*Monochaetiella* E. Castell. (3)  
*Monochaetinula* Muthumary, Abbas & B. Sutton (6)  
*Monochaetopsis* Pat. (1)  
*Monodia* Breton & Faurel (2)  
*Monodidymaria* U. Braun (5)  
*Monodisma* Alcorn (1)  
*Monostichella* Höhn. (15)  
*Moorella* P. Rag. Rao & D. Rao (3)  
*Moralesia* Urries (1)  
*Morrisographium* M. Morelet (8)  
*Mucosetospora* M. Morelet (1)  
*Muiogone* Thaxt. (2)  
*Muirella* R. Sprague (1)  
*Murogenella* Goos & E.F. Morris (3)  
*Mycelephas* R.F. Castañeda (2)  
*Mycocentrodochium* K. Matsush. & Matsush. (1)  
*Mycöenterolobium* Goos (3)  
*Mycohypallage* B. Sutton (2)  
*Mycopara* Bat. & J.L. Bezerra (1)  
*Mycospraguea* U. Braun & Rogerson (1)  
*Mycosticta* Höhn. (1)  
*Mycosylva* M.C. Tulloch (3)  
*Mycotodea* Kirschst. (14)  
*Mycousteria* M.L. Farr (2)  
*Myiocoprula* Petr. (2)  
*Myriellina* Höhn. (2)  
*Myrmecomycetes* Jouvenaz & Kimbr. (1)  
*Myrotheciastrum* Abbas & B. Sutton (1)  
*Mystrosporiella* Munjal & Kulshr. (4)  
*Myxoparaphysella* Caball. (2)  
*Myxosporella* Sacc. (1)  
*Myxosporidiella* Negru (1)  
*Myxostomellina* Syd. (1)

*Myxothyriopsis* Bat. & A.F. Vital (1)  
*Myxothyrium* Bubák & Kabát (1)  
*Naemosphaera* P. Karst. (1)  
*Naemosphaerella* Höhn. (2)  
*Nagrajia* R.F. Castañeda & W.B. Kendr. (1)  
*Nagrajomyces* Mel'nik (1)  
*Nakatopsis* Whitton, McKenzie & K.D. Hyde (2)  
*Nanoschema* B. Sutton (1)  
*Naothyrsium* Bat. (1)  
*Necraphidium* Cif. (1)  
*Nematogonum* Desm. (1)  
*Nematographium* Goid. (5)  
*Nemozythiella* Höhn. (1)  
*Neoalpakesa* Punith. (1)  
*Neoarbuscula* B. Sutton (1)  
*Neobarclaya* Sacc. (2)  
*Neodiplodina* Petr. (1)  
*Neofuckelia* Zeller & Goodd. (1)  
*Neoheteroceras* Nag Raj (2)  
*Neojohnstonia* B. Sutton (2)  
*Neoligniella* Naumov (4)  
*Neomarssoniella* U. Braun (1)  
*Neomelanconium* Petr. (3)  
*Neoovularia* U. Braun (6)  
*Neopeltis* Syd. (3)  
*Neopericonia* Kamal, A.N. Rai & Morgan-Jones (1)  
*Neophoma* Petr. & Syd. (2)  
*Neoplaconema* B. Sutton (2)  
*Neopodoconis* Rifai (3)  
*Neoramularia* U. Braun (9)  
*Neospegazzinia* Petr. & Syd. (2)  
*Neottiospora* Desm. (2)  
*Neozythia* Petr. (1)  
*Neta* Shearer & J.L. Crane (10)  
*Nidulispora* Nawawi & Kuthub. (1)  
*Nigrolentilocus* R.F. Castañeda & Heredia (6)  
*Nigromacula* Etayo (1)  
*Nigropuncta* D. Hawksw. (2)  
*Nosophloea* Fr. (3)  
*Nothospora* Peyronel (1)  
*Novozymia* W.P. Wu (1)  
*Nummospora* E. Müll. & Shoemaker (1)  
*Nusia* Subram. (2)  
*Nyctalospora* E.F. Morris (1)  
*Nypaella* K.D. Hyde & B. Sutton (2)  
*Obeliospora* Nawawi & Kuthub. (5)  
*Obstipipilus* B. Sutton (1)  
*Octopodotus* Kohlm. & Volkm.-Kohlm. (1)  
*Odontodictyospora* Mercado (1)  
*Oedothea* Syd. (1)  
*Ojibwaya* B. Sutton (1)  
*Omega* B. Sutton & Minter (1)

*Oncopodium* Sacc. (12)  
*Oncospora* Kalchbr. (8)  
*Oncosporella* P. Karst. (1)  
*Oncostroma* Bat. & Marasas (1)  
*Onychophora* W. Gams, P.J. Fisher & J. Webster (1)  
*Oothyrium* Syd. (1)  
*Ophiosira* Petr. (1)  
*Orphanocoela* Nag Raj (3)  
*Ostracoderma* Fr. (3)  
*Ostracodermidium* Mukerji (1)  
*Oswaldina* Rangel (1)  
*Paathramaya* Subram. (5)  
*Pachycladina* Marvanová (3)  
*Palawaniopsis* Bat., Cif. & Nascim. (1)  
*Papilionospora* V.G. Rao & B. Sutton (1)  
*Pappimyces* B. Sutton & Hodges (1)  
*Paraaoria* R.K. Verma & Kamal (1)  
*Pararthrocladium* Matsush. (1)  
*Parablastocatena* Y.D. Zhang & X.G. Zhang (1)  
*Paraceratocladium* R.F. Castañeda (6)  
*Parachionomyces* Thaug (1)  
*Paracostantinella* Subram. & Sudha (1)  
*Paracryptophiale* Kuthub. & Nawawi (2)  
*Paracytospore* Petr. (1)  
*Paradendryphiopsis* M.B. Ellis (5)  
*Paradidymobotryum* C.J.K. Wang & B. Sutton (1)  
*Paradiplodia* Speg. ex Trotter (6)  
*Paradischloridium* Bhat & B. Sutton (1)  
*Paradiscula* Petr. (1)  
*Paraëpicoccum* Matsush. (1)  
*Parafulvia* Kamal, A.N. Rai & Morgan-Jones (1)  
*Parahaplotrichum* W.A. Baker & Partr. (1)  
*Paraharknessia* Matsush. (1)  
*Parahyalotriopsis* Nag Raj (1)  
*Paramassariothea* Subram. & Muthumary (1)  
*Paramenisporopsis* Matsush. (1)  
*Parapericonia* M.B. Ellis (2)  
*Parapericoniella* U. Braun, Heuchert & K. Schub. (1)  
*Paraphaeoisaria* de Hoog & Morgan-Jones (1)  
*Parapithomyces* Thaug (1)  
*Parapyricularia* M.B. Ellis (4)  
*Pararobillarda* Matsush. (1)  
*Parasphaeropsis* Petr. (1)  
*Parastigmatellina* Bat. & C.A.A. Costa (1)  
*Paratetraploa* M.K.M. Wong & K.D. Hyde (1)  
*Paratomenticola* M.B. Ellis (2)  
*Paratrichoconis* Deighton & Piroz. (4)  
*Paraulocladium* R.F. Castañeda (2)  
*Paspalomyces* Linder (1)  
*Patriciomyces* D. Hawksw. (1)  
*Pazschkeella* Syd. & P. Syd.  
*Peethasthabeeja* P. Rag. Rao (1)

*Pellionella* (Sacc.) Sacc. (1)  
*Peltasterinostroma* Punith. (1)  
*Peltasteropsis* Bat. & H. Maia (7)  
*Peltistroma* Henn. (1)  
*Peltistromella* Höhn. (1)  
*Peltosoma* Syd. (1)  
*Peltostromellina* Bat. & A.F. Vital (1)  
*Peltostromopsis* Bat. & A.F. Vital (1)  
*Penzigomyces* Subram. (13)  
*Perelegamyces* R.F. Castañeda & W.B. Kendr. (1)  
*Perizomella* Syd. (1)  
*Pestalozziella* Sacc. & Ellis ex Sacc. (4)  
*Petrakiopsis* Subram. & K.R.C. Reddy (1)  
*Phacostroma* Petr. (1)  
*Phacostromella* Petr. (1)  
*Phaeoblastophora* Partr. & Morgan-Jones (2)  
*Phaeocandelabrum* R.F. Castañeda, Gusmão, Guarro & Iturr. (3)  
*Phaeodactylium* Agnihotr. (7)  
*Phaeodiscula* Cub. (1)  
*Phaeodomus* Höhn. (3)  
*Phaeohiratsukaea* Udagawa & Iwatsu (1)  
*Phaeoidiomyces* Dorn.-Silva & Dianese (2)  
*Phaeolabrella* Speg. (1)  
*Phaeomonilia* R.F. Castañeda, Heredia & R.M. Arias (5)  
*Phaeomonostichella* Keissl. ex Petr. (1)  
*Phaeophloeospora* Crous & B. Sutton (1)  
*Phaeophomopsis* Höhn. (1)  
*Phaeoschizotrichum* C.R. Silva, Gusmão & R.F. Castañeda (1)  
*Phaeostalagmus* W. Gams (7)  
*Phaeostilbelloides* Armando, Z.M. Chaves & Dianese (1)  
*Phaeothyrium* Petr. (1)  
*Phaeotrichoconis* Subram. (8)  
*Phaeoxyphiella* Bat. & Cif. (7)  
*Phellostroma* Syd. & P. Syd. (1)  
*Phialoarthrobotryum* Matsush. (2)  
*Phialogeniculata* Matsush. (4)  
*Phialophaeosisaria* Matsush. (1)  
*Phialostele* Deighton (1)  
*Phialotubus* R.Y. Roy & Leelav. (1)  
*Phloeosporina* Höhn. (1)  
*Phlyctaeniella* Petr. (2)  
*Phomachora* Petr. & Syd. (2)  
*Phomachorella* Petr. (1)  
*Phomatospora* Tak. Kobay. & K. Sasaki (1)  
*Phomyces* Clem. (1)  
*Phragmoconidium* G.F. Sepúlveda, Pereira-Carv. & Dianese (1)  
*Phragmopeltis* Henn. (5)  
*Phragmospithula* Subram. & N.G. Nair (3)  
*Phragmospithulella* J. Mena & Mercado (1)  
*Phthora* d'Hérelle (1)  
*Phylloedium* Fr. (1)  
*Phyllohendersonia* Tassi (25)



*Physalidiella* Rulamort (2)  
*Physalidiopsis* R.F. Castañeda & W.B. Kendr. (1)  
*Piggotia* Berk. & Broome (3)  
*Pinatubo* J.B. Manandhar & Mew (1)  
*Piperivora* Siboe, P.M. Kirk & P.F. Cannon (1)  
*Piricauda* Bubák (8)  
*Piricaudilium* Hol.-Jech. (2)  
*Piricaudiopsis* J. Mena & Mercado (1)  
*Pirispora* Faurel & Schotter (1)  
*Pirostomella* Sacc. (2)  
*Pithosira* Petr. (1)  
*Pittostroma* Kowalski & T.N. Sieber (1)  
*Placella* Syd. (1)  
*Placodiplodia* Bubák (2)  
*Placonema* (Sacc.) Petr. (3)  
*Placonemina* Petr. (1)  
*Placosphaerina* Maire (1)  
*Placothea* Syd. (1)  
*Placothyrium* Bubák (1)  
*Plagiostigmella* Petr. (1)  
*Plasia* Sherwood (1)  
*Plectonaemella* Höhn. (1)  
*Plectopeltis* Syd. (1)  
*Plectophomopsis* Petr. (1)  
*Plectopycnis* Bat. & A.F. Vital (4)  
*Plectosira* Petr. (1)  
*Plectronidiopsis* Nag Raj (1)  
*Plectronidium* Nag Raj (4)  
*Plenocatenuelis* Bat. & Cif. (1)  
*Plenophysa* Syd. & P. Syd. (1)  
*Plenotrichopsis* Bat. (1)  
*Plenotrichum* Syd. (2)  
*Plenozythia* Syd. & P. Syd. (2)  
*Pleocouturea* G. Arnaud (2)  
*Plesiospora* Drechsler (1)  
*Pleurodesmospora* Samson, W. Gams & H.C. Evans (1)  
*Pleurodiscula* Höhn. (1)  
*Pleurodomus* Petr. (1)  
*Pleuropedium* Marvanová & S.H. Iqbal (3)  
*Pleurophomopsis* Petr. (7)  
*Pleuroplaconema* Petr. (2)  
*Pleuroplacosphaeria* Syd. (1)  
*Pleurostromella* Petr. (15)  
*Pleurotheciopsis* B. Sutton (6)  
*Pleurothyriella* Petr. & Syd. (1)  
*Pleurovularia* R. Kirschner & U. Braun (1)  
*Pocillopycnis* Dyko & B. Sutton (1)  
*Podoplaconema* Petr. (1)  
*Podosporiella* Ellis & Everh. (4)  
*Podosporiopsis* Jian Ma, X.G. Zhang & R.F. Castañeda (2)  
*Podosporium* Schwein. (67)  
*Poikilosperma* Bat. & J.L. Bezerra (1)

*Polybulbophiale* Goh & K.D. Hyde (1)  
*Polychaetella* Speg. (3)  
*Polycladium* Ingold (1)  
*Polydesmus* Mont. (14)  
*Polyetron* Bat. & Peres (1)  
*Polylobatispora* Matsush. (3)  
*Polyrostrata* T.P. Devi & N. Mathur (2)  
*Polystomellomyces* Bat. (1)  
*Polystratorictus* Matsush. (2)  
*Polytretophora* Mercado (3)  
*Porocladium* Descals (1)  
*Poropeltis* Henn. (1)  
*Porophilomyces* U. Braun (1)  
*Porosubramania* Hol.-Jech. (2)  
*Porrectotheca* Matsush. (1)  
*Potamomyces* K.D. Hyde (1)  
*Proboscispora* Punith. (1)  
*Protostegiomyces* Bat. & A.F. Vital (1)  
*Protostroma* Bat. (1)  
*Pseudoacrodictys* W.A. Baker & Morgan-Jones (14)  
*Pseudoanguillospora* S.H. Iqbal (3)  
*Pseudoaristastoma* Suj. Singh (1)  
*Pseudoasperisporium* U. Braun (3)  
*Pseudobasidiospora* Dyko & B. Sutton (1)  
*Pseudocanalisorium* R.F. Castañeda & W.B. Kendr. (1)  
*Pseudocenangium* P. Karst. (1)  
*Pseudochuppia* Kamal et al. (1)  
*Pseudoclathrosphaerina* Voglmayr (2)  
*Pseudoconium* Petr. (1)  
*Pseudocytosphaeria* Punith. & Spooner (1)  
*Pseudocytospora* Petr. (1)  
*Pseudodichomera* Höhn. (3)  
*Pseudodidymaria* U. Braun (3)  
*Pseudodiplodia* (P. Karst.) Sacc. (45)  
*Pseudodiscula* Laubert (2)  
*Pseudofuscophialis* Sivan. & H.S. Chang (1)  
*Pseudogaster* Höhn. (1)  
*Pseudographiella* E.F. Morris (3)  
*Pseudohepatica* P.M. Jørg. (1)  
*Pseudomicrodochium* B. Sutton (8)  
*Pseudoneottiospora* Faurel & Schotter (2)  
*Pseudopatellina* Höhn. (1)  
*Pseudopeltistroma* Katum. (1)  
*Pseudoperitheca* Elenkin (1)  
*Pseudopetrakia* M.B. Ellis (2)  
*Pseudophloeosporella* U. Braun (1)  
*Pseudophragmotrichum* W.P. Wu, B. Sutton & Gange (1)  
*Pseudopolystigmina* Murashk. (2)  
*Pseudoramularia* Matsush. (2)  
*Pseudorhizopogon* Kobayasi (1)  
*Pseudoschizothyra* Punith. (1)  
*Pseudosigmoidea* K. Ando & N. Nakam. (2)

*Pseudostegia* Bubák (1)  
*Pseudothyrium* Höhn. (1)  
*Pseudotorula* Subram. (3)  
*Pseudotracylla* B. Sutton & Hodges (2)  
*Pseudotrichoconis* W.A. Baker & Morgan-Jones (1)  
*Pseudozythia* Höhn. (1)  
*Psilosphaeria* Cooke (1)  
*Pteromycula* P. Cannon (1)  
*Pterulopsis* Wakef. & Hansf. (1)  
*Pterygosporopsis* P.M. Kirk (2)  
*Puccinospora* Speg. (1)  
*Pulchromyces* Hennebert (1)  
*Pullospora* Faurel & Schotter (2)  
*Pulvinella* A.W. Ramaley (1)  
*Punctillina* Toro (1)  
*Pycmaeosphaera* Etayo & Diederich (3)  
*Pycnidioarxiella* Punith. & N.D. Sharma (1)  
*Pycnidiopeltis* Bat. & C.A.A. Costa (1)  
*Pycnis* Bref. (1)  
*Pycnodactylus* Bat., A.A. Silva & Cavalc. (1)  
*Pycnodallia* Kohlm. & Volkm.-Kohlm. (1)  
*Pycnoharknessia* Matsush. (1)  
*Pycnomma* Syd. (1)  
*Pycnomoreletia* Rulamort (2)  
*Pycnoseynesia* Kuntze (1)  
*Pycnothera* N.D. Sharma & G.P. Agarwal (1)  
*Pycnothyriella* Bat. (2)  
*Pycnothyrium* Diederich (6)  
*Pyramidospora* Sv. Nilsson (9)  
*Pyrenyllum* Clem. (2)  
*Pyrgostroma* Petr. (2)  
*Pyripnomycetes* Cavalc. (1)  
*Quadracaea* Lunghini, Pinzari & Zucconi (3)  
*Quadricladium* Nawawi & Kuthub. (1)  
*Quasidiscus* B. Sutton (1)  
*Quasiphloeospora* B. Sutton, Crous & Shamoun (1)  
*Queenslandia* Bat. & H. Maia (5)  
*Quezelia* Faurel & Schotter (1)  
*Raciborskiomyces* Siemaszko (4)  
*Radiatispora* Matsush. (1)  
*Raizadenia* S.L. Srivast. (1)  
*Ramakrishnanella* Kamat & Ullasa ex Ullasa (1)  
*Ramicapitulum* Whitton, K.D. Hyde & McKenzie (1)  
*Ramicephala* Voglmayr & G. Delgado (1)  
*Ramoconidiifera* B. Sutton, Carmarón & A.I. Romero (2)  
*Redbia* Deighton & Piroz. (5)  
*Refractohilum* D. Hawksw. (5)  
*Repetoblastiella* R.F. Castañeda, Minter & M. Stadler (1)  
*Rhabdoctema* Syd. (2)  
*Rhabdogloeopsis* Petr. (2)  
*Rhabdostromella* Höhn. (1)  
*Rhabdostromina* Died. (3)

*Rhexoampullifera* P.M. Kirk (3)  
*Rhexoprolifer* Matsush. (1)  
*Rhinotrichella* G. Arnaud ex de Hoog (4)  
*Rhipidocephalum* Trail (2)  
*Rhizosphaerina* B. Sutton (2)  
*Rhodesia* Grove (2)  
*Rhodesiopsis* B. Sutton & R. Campb. (2)  
*Rhodothallus* Bat. & Cif. (2)  
*Rhombostilbella* Zimm. (2)  
*Rhopalocladium* Schroers, Samuels & W. Gams (1)  
*Rhynchodiplodia* Briosi & Farneti (1)  
*Rhynchomyces* Willk. (1)  
*Rhynchoseptoria* Unamuno (1)  
*Rhynchosporina* Arx (2)  
*Riclaretia* Peyronel (1)  
*Rileya* A. Funk (1)  
*Robakia* Petr. (1)  
*Rogergoosiella* A. Hern.-Gut. & J. Mena (1)  
*Roscoepoundia* Kuntze (1)  
*Rosulomyces* S. Marchand & Cabral (1)  
*Rota* Bat., Cif. & Nascim. (1)  
*Ruggieria* Cif. & Montemart. (1)  
*Saania* Zhurb. (1)  
*Sadasivania* Subram. (3)  
*Sanjuanomyces* R.F. Castañeda & W.B. Kendr. (1)  
*Sarcinosporon* D.S. King & S.C. Jong (1)  
*Sarcoexcipula* Etayo (1)  
*Sarcophoma* Höhn. (3)  
*Sarophorum* Syd. & P. Syd. (1)  
*Satchmopsis* B. Sutton & Hodges (1)  
*Sativumoides* S.C. Ren, Jian Ma & X.G. Zhang (1)  
*Scaphidium* Clem. (1)  
*Sceptrifera* Deighton (1)  
*Schizothyra* Bat. & C.A.A. Costa (1)  
*Schizothyrella* Thüm. (1)  
*Schizothyropsis* Bat. & A.F. Vital (1)  
*Schizotrichum* McAlpine (1)  
*Schroeteria* G. Winter (1)  
*Schwarzmannia* Pisareva (1)  
*Scirrhophoma* Petr. (1)  
*Sclerographiopsis* Deighton (1)  
*Sclerographium* Berk. (4)  
*Scleromeris* Syd. (3)  
*Sclerophoma* Höhn. (30)  
*Scleropycnis* Syd. & P. Syd. (2)  
*Sclerozythia* Petch (1)  
*Scolecobasidiella* M.B. Ellis (2)  
*Scolecobeltrania* Iturr., R.F. Castañeda & Rob. Fernández (1)  
*Scolecodochium* K. Matsush. & Matsush. (1)  
*Scolecosporiella* Petr. (6)  
*Scolecotheca* Søchting & B. Sutton (1)  
*Scolecozythia* Curzi (1)

*Scoliotidium* Bat. & Cavalc. (1)  
*Scopaphoma* Dearn. & House (1)  
*Scopulariella* Gjaerum (1)  
*Scothelius* Bat., J.L. Bezerra & Cavalc. (1)  
*Scutisporus* K. Ando & Tubaki (1)  
*Scutopeltis* Bat. & H. Maia (2)  
*Scutopycnis* Bat. (2)  
*Seimatosporiopsis* B. Sutton, Ghaffer & Abbas (2)  
*Selenosira* Petr. (1)  
*Selenosporopsis* R.F. Castañeda & W.B. Kendr. (1)  
*Semipseudocercospora* J.M. Yen (2)  
*Septocytella* Syd. (1)  
*Septogloeum* Sacc. (2)  
*Septomyxella* (Höhn.) Höhn. (1)  
*Septopatella* Petr. (1)  
*Septosporiopsis* W.A. Baker & Morgan-Jones (1)  
*Septosporium* Corda (5)  
*Septotrullula* Höhn. (2)  
*Sessiliospora* D. Hawksw. (1)  
*Setolibertella* Punith. & Spooner (1)  
*Setophiale* Matsush. (1)  
*Setosporella* Mustafa & Abdul-Wahid (1)  
*Seychellomyces* Matsush. (1)  
*Seynesiopsis* Henn. (1)  
*Shawiella* Hansf. (1)  
*Sheariella* Petr. (1)  
*Sheathnema* Dubey & Moonambeth (2)  
*Shivomyces* Hosag. (2)  
*Siamia* V. Robert, Decock & R.F. Castañeda (1)  
*Sigmatomyces* Sacc. & P. Syd. (1)  
*Simmonsella* J.L. Crane & A.N. Mill. (1)  
*Sirexipula* Bubák (1)  
*Sirocyphis* Clem. (1)  
*Sirogloea* Petr. (1)  
*Siroligniella* Naumov (1)  
*Sirophoma* Höhn. (3)  
*Siroplacodium* Petr. (6)  
*Siropleura* Petr. (1)  
*Siroscyphellina* Petr. (2)  
*Sirosperma* Syd. & P. Syd. (2)  
*Sirosphaera* Syd. & P. Syd. (2)  
*Sirosporonaemella* Naumov (1)  
*Sirothecium* P. Karst. (3)  
*Sirothyriella* Höhn. (2)  
*Sirothyrium* Syd. & P. Syd. (1)  
*Sirozythia* Höhn. (2)  
*Sirozythiella* Höhn. (1)  
*Sitochora* H.B.P. Upadhyay (1)  
*Slimacomycetes* Minter (2)  
*Soloacrospora* W.B. Kendr. & R.F. Castañeda (2)  
*Solosympiella* Matsush. (8)  
*Solotermiospora* Matsush. (1)

*Spermatoloncha* Speg. (1)  
*Spermatoloncha* Speg. (1)  
*Spermochaetella* Cif. (1)  
*Spermospora* R. Sprague (9)  
*Spermosporella* Deighton (4)  
*Sphaeridium* Fresen. (5)  
*Sphaeriostromella* Bubák (1)  
*Sphaeriothyrium* Bubák (2)  
*Sphaeromma* H.B.P. Upadhyay (2)  
*Sphaeronaema* Fr. (50)  
*Sphaerophoma* Petr. (2)  
*Sphaerulomyces* Marvanová (1)  
*Spinulospora* Deighton (1)  
*Spiralum* J.L. Mulder (2)  
*Spiropes* Cif. (ca. 40)  
*Splanchospora* Lar.N. Vassiljeva (1)  
*Spondylocladiella* Linder (2)  
*Spondylocladiopsis* M.B. Ellis (2)  
*Sporhaplus* H.B.P. Upadhyay (1)  
*Sporidesmiopsis* Subram. & Bhat (6)  
*Sporoglena* Sacc. (1)  
*Sporophiala* P. Rag. Rao (3)  
*Sporotretophora* Whitton, McKenzie & K.D. Hyde (1)  
*Stachybotryella* Ellis & Barthol. (3)  
*Stachybotryna* Tubaki & T. Yokoy. (6)  
*Stagonopatella* Petr. (1)  
*Stagonopsis* Sacc. (4)  
*Stagonosporina* Tassi (1)  
*Stagonostromella* Petr. & Syd. (1)  
*Staheliella* Emden (2)  
*Stalagmochaetia* Cif. & Bat. (2)  
*Stanhughesiella* R.F. Castañeda & D.W. Li (1)  
*Stauronema* (Sacc.) Syd., P. Syd. & E.J. Butler (5)  
*Stauronematopsis* Abbas, B. Sutton & Ghaffar (1)  
*Staurophoma* Höhn. (1)  
*Stegonsporiopsis* Van Warmelo & B. Sutton (1)  
*Stellifraga* Alstrup & Olech (1)  
*Stellomyces* Morgan-Jones, R.C. Sinclair & Eicker (2)  
*Stellopeltis* Bat. & A.F. Vital (2)  
*Stellospora* Alcorn & B. Sutton (2)  
*Stellothyriella* Bat. & Cif. (2)  
*Stenocephalopsis* Chamuris & C.J.K. Wang (1)  
*Stenocladiella* Marvanová & Descals (1)  
*Stenospora* Deighton (1)  
*Stephembruneria* R.F. Castañeda (1)  
*Stevensonula* Petr. (1)  
*Stictopatella* Höhn. (1)  
*Stictosepta* Petr. (1)  
*Stigmatellina* Bat. & H. Maia (1)  
*Stigmaea* Fr. (1)  
*Stigmella* Lév. (28)  
*Stigmopeltis* Syd. (2)

*Stilbellula* Boedijn (1)  
*Stilbodendron* Syd. & P. Syd. (1)  
*Stilbophoma* Petr. (1)  
*Strasseriosis* B. Sutton & Tak. Kobay. (1)  
*Stratiphoromyces* Goh & K.D. Hyde (2)  
*Striosphaeropsis* Verkley & Aa (1)  
*Stromatocrea* W.B. Cooke (1)  
*Stromatopogon* Zahlbr. (3)  
*Stromatopycnis* A.F. Vital (1)  
*Stromatostysanus* Höhn. (3)  
*Strongylohallus* Bat. & Cif. (1)  
*Stygiomyces* Coppins & S.Y. Kondr. (1)  
*Stylaspergillus* B. Sutton, Alcorn & P.J. Fisher (1)  
*Subhysteropycnis* Wedin & Hafellner (1)  
*Subicularium* M.L. Farr & Goos (1)  
*Subulispora* Tubaki (8)  
*Suttoniella* S. Ahmad (3)  
*Suttonina* H.C. Evans (1)  
*Syamithabeeja* Subram. & Natarajan (1)  
*Sylviacollaea* Cif. (1)  
*Symphysos* Bat. & Cavalc. (1)  
*Sympodiella* W.B. Kendr. (5)  
*Sympodiocladium* Descals (1)  
*Sympodioclathra* Voglmayr (1)  
*Sympodioplanus* R.C. Sinclair & Boshoff (3)  
*Sympodiosynnema* J.W. Xia & X.G. Zhang (1)  
*Synchronoblastia* Uecker & F.L. Caruso (1)  
*Syncladium* Rabenh. (1)  
*Synnemacrodictys* W.A. Baker & Morgan-Jones (1)  
*Synnemaseimatoides* K. Matsush. & Matsush. (1)  
*Synnematomyces* Kobayasi (1)  
*Synostomina* Petr. (1)  
*Syphosphaera* Dumort. (1)  
*Systremmopsis* Petr. (1)  
*Taeniolina* M.B. Ellis (6)  
*Talekpea* Lunghini & Rambelli (1)  
*Talpapellis* Alstrup & M.S. Cole (4)  
*Tandonea* M.D. Mehrotra (1)  
*Tarsodisporus* Bat. & A.A. Silva (1)  
*Tectacervulus* A.W. Ramaley (1)  
*Telioclipeum* Viégas (1)  
*Temerariomyces* B. Sutton (1)  
*Teratosperma* Syd. & P. Syd. (11)  
*Termitaria* Thaxt. (6)  
*Tetrabrachium* Nawawi & Kuthub. (1)  
*Tetrabrunneospora* Dyko (1)  
*Tetracoccusporium* Szabó (4)  
*Tetrameronycha* Speng. ex W. Rossi & M. Blackw. (1)  
*Tetranacriella* Kohlm. & Volkm.-Kohlm. (1)  
*Tetranacrium* H.J. Huds. & B. Sutton (1)  
*Tetraposporium* S. Hughes (2)  
*Textotheca* Matsush. (1)

*Thaptozpora* B. Sutton & Pascoe (3)  
*Thirumalacharia* Rathaiah (1)  
*Tholomyces* Matsush. (1)  
*Thoracella* Oudem. (1)  
*Thrinacospora* Petr. (1)  
*Thyriostromella* Bat. & C.A.A. Costa (1)  
*Thyrostromella* Höhn. (3)  
*Thyrsidiella* Höhn. ex Höhn. (2)  
*Thyrsidina* Höhn. (1)  
*Tiarosporellivora* Punith. (1)  
*Ticogloea* G. Weber et al. (2)  
*Ticosynnema* R.F. Castañeda, Granados & Mardones (1)  
*Titaea* Sacc. (23)  
*Titaeopsis* B. Sutton & Deighton (1)  
*Titaeospora* Bubák (2)  
*Tomenticola* Deighton (1)  
*Tompetchia* Subram. (1)  
*Toxosporiella* B. Sutton (1)  
*Toxosporiopsis* B. Sutton & Sellar (1)  
*Toxosporium* Vuill. (2)  
*Trematophoma* Petr. (2)  
*Tremellidium* Petr. (1)  
*Tretendophragmia* Subram. (1)  
*Tretocephala* Subram. (1)  
*Tretolylea* Cantillo, R.F. Castañeda & Gusmão (1)  
*Tretospeira* Piroz. (1)  
*Tretovularia* Deighton (1)  
*Tribolospora* D.A. Reid (1)  
*Tricellula* Beverw. (8)  
*Trichobolbus* Bat. (1)  
*Trichobotrys* Penz. & Sacc. (4)  
*Trichoconis* Clem. (21)  
*Trichodiscula* Vouaux (1)  
*Trichodochium* Syd. (3)  
*Trichomatoclava* G.F. Sepúlveda, Pereira-Carv. & Dianese (1)  
*Trichomatomyces* Dorn.-Silva & Dianese (1)  
*Trichomatosphaera* Pereira-Carv., G.F. Sepúlveda & Dianese (1)  
*Trichopeltulum* Speg. (1)  
*Trichoseptoria* Cavara (2)  
*Trichosporiella* Kamyschko (4)  
*Trichosporodochium* Dorn.-Silva & Dianese (1)  
*Trichotheca* P. Karst. (1)  
*Tricladiella* K. Ando & Tubaki (1)  
*Tricliadiopsis* Descals (2)  
*Tricladiospora* Nawawi & Kuthub. (3)  
*Tricornispora* Bonar (1)  
*Trifurcospora* K. Ando & Tubaki (2)  
*Trigonosporium* Tassi (2)  
*Tripoconidium* Subram. (1)  
*Triposporina* Höhn. (2)  
*Triramulisporea* Matsush. (3)  
*Triscelophorus* Ingold (8)



*Triscelosporium* Nawawi & Kuthub. (1)  
*Trisulcosporium* H.J. Huds. & B. Sutton (1)  
*Tromeropsis* Sherwood (1)  
*Troposporium* Harkn. (1)  
*Troposporopsis* Whitton, McKenzie & K.D. Hyde (2)  
*Tryblidiopycnis* Höhn. (1)  
*Tryssglobulus* B. Sutton & Pascoe (1)  
*Tuberculispora* Deighton & Piroz. (1)  
*Tunicago* B. Sutton & Pollack (2)  
*Turturconchata* J.L. Chen, T.L. Huang & Tzean (2)  
*Tympanosporium* W. Gams (1)  
*Uberispora* Piroz. & Hodges (4)  
*Ubrizsya* Negru (1)  
*Ulocoryphus* Michaelides, L. Hunter & W.B. Kendr. (1)  
*Umbellidion* B. Sutton & Hodges (1)  
*Uniseta* Ciccar. (1)  
*Urohendersonia* Speg. (5)  
*Urohendersoniella* Petr. (1)  
*Uvarispora* Goos & Piroz. (1)  
*Vagnia* D. Hawksw. & Miądl. (1)  
*Vanakripa* Bhat et al. (9)  
*Vanbeverwijkia* Agnihothr. (1)  
*Vanderystiella* Henn. (1)  
*Vanterpoolia* A. Funk (1)  
*Vasudevella* Chona et al. (1)  
*Velloziomyces* Armando, Z.M. Chaves & Dianese (1)  
*Velutipila* D. Hawksw. (1)  
*Ventrographium* H.P. Upadhyay, Cavalc. & A.A. Silva (1)  
*Venustocephala* Matsush. (2)  
*Venustosynnema* R.F. Castañeda & W.B. Kendr. (3)  
*Veracruzomyces* Mercado, Guarro, Heredia & J. Mena (1)  
*Veramyrella* G. Delgado (1)  
*Veramyces* Matsush. (1)  
*Verdipulvinus* A.W. Ramaley (1)  
*Veronaella* Subram. & K.R.C. Reddy (1)  
*Veronidia* Negru (1)  
*Verrucariella* S. Ahmad (1)  
*Verrucaster* Tobler (1)  
*Verrucophragma* Crous, M.J. Wingf. & W.B. Kendr. (1)  
*Verticicladius* Matsush. (3)  
*Vesicladiella* Crous & M.J. Wingf. (1)  
*Vesiculohyphomyces* Armando, Pereira-Carv. & Dianese (1)  
*Vestigium* Piroz. & Shoemaker (2)  
*Virgariella* S. Hughes (11)  
*Viridiannula* Etayo (1)  
*Vittalia* Gaws & Bhat (1)  
*Vizellopsidites* M.A. Khan, M. Bera & Bera (1)  
*Vouauxiella* Petr. & Syd. (3)  
*Waihonghopes* Yanna & K.D. Hyde (1)  
*Wardinella* Bat. & Peres (1)  
*Websteromyces* W.A. Baker & Partr. (2)  
*Weufia* Bhat & B. Sutton (1)

*Wolkia* Ramsb. (1)  
*Xenidiocercus* Nag Raj (1)  
*Xenochora* Petr. (1)  
*Xenodomus* Petr. (1)  
*Xenoheteroconium* Bhat, W.B. Kendr. & Nag Raj (1)  
*Xenokylindria* DiCosmo, S.M. Berch & W.B. Kendr. (2)  
*Xenomyxa* Syd. (1)  
*Xenopeltis* Syd. & P. Syd. (1)  
*Xenoplaca* Petr. (1)  
*Xenostroma* Höhn. (1)  
*Xeroconium* D. Hawksw. (1)  
*Xiphomyces* Syd. & P. Syd. (2)  
*Xiuguozhangia* K. Zhang, R.F. Castañeda, Jian Ma & L.G. Ma (5)  
*Xylochia* B. Sutton (2)  
*Xyloglyphis* Clem. (1)  
*Xylohypha* (Fr.) E.W. Mason (6)  
*Xylohyphopsis* W.A. Baker & Partr. (3)  
*Yalomyces* Nag Raj (6)  
*Yinmingella* Goh, C.K.M. Tsui & K.D. Hyde (1)  
*Ypsilomyces* D.A.C. Almeida & Gusmão (1)  
*Yuccamyces* Gour, Dyko & B. Sutton (6)  
*Zakatoshia* B. Sutton (2)  
*Zebrospora* McKenzie (1)  
*Zelandiocoela* Nag Raj (1)  
*Zelodactylaria* A.C. Cruz, Gusmão & R.F. Castañeda (1)  
*Zelopelta* B. Sutton & R.D. Gaur (1)  
*Zelosatchmopsis* Nag Raj (1)  
*Zetesimomyces* Nag Raj (1)  
*Zevadia* J.C. David & D. Hawksw. (1)  
*Zilingia* Petr. (1)  
*Zinzipegasa* Nag Raj (1)  
*Zopheromyces* B. Sutton & Hodges (1)  
*Zunura* Nag Raj (1)  
*Zythia* Fr. (1)  
*Zyxiphora* B. Sutton (1)

**BASIDIOLOMYCOTA** Doweld

***Basidiobolomycetes*** Doweld\*

***Basidiobolales*** Jacz. & P.A. Jacz.\*

***Basidiobolaceae*** Engl. & E. Gilg

*Basidiobolus* Eidam (10)

*Schizangiella* J. Dwyer, B. Burwell, Humber, C. Mcleod, M. Fleetwood & T. Johnson bis (1)

**BASIDIOMYCOTA** R.T. Moore

***Basidiomycota*** R.T. Moore

***Agaricomycotina*** Doweld

***Agaricomycetes*** Doweld

***Agaricales*** Underw.

***Agaricaceae*** Chevall.

*Abstoma* G. Cunn. (8)

*Acutocapillitium* P. Ponce de León (3)

*Agaricus* L. (ca. 500)  
*Arachnion* Schwein. (13)  
*Barcheria* T. Lebel (1)  
*Battarrea* Pers. (3)  
*Battarreoides* T. Herrera (1)  
*Calvatiopsis* Hollós (1)  
*Chamaemyces* Battarra ex Earle (2)  
*Chlamydopus* Speg. (1)  
*Chlorolepiota* Sathe & S.D. Deshp. (3)  
*Chlorophyllum* Masee (19)  
*Clarkeinda* Kuntze (5)  
*Clavogaster* Henn. (2)  
*Coniolepiota* Vellinga (1)  
*Coprinus* Pers. (ca. 17)  
*Crucispora* E. Horak (2)  
*Cystolepiota* Singer (ca. 12)  
*Dictyocephalos* L.M. Underwood ex V.S. White (1)  
*Disciseda* Czern. (15)  
*Echinoderma* (Locq. ex Bon) Bon (ca. 15)  
*Endolepiotula* Singer (1)  
*Eriocybe* Vellinga (1)  
*Gasterellopsis* Routien (1)  
*Glyptoderma* R. Heim & Perr.-Bertr. (1)  
*Heinemannomyces* Watling (2)  
*Hiatulopsis* Singer & Grinling (2)  
*Holocotylon* Lloyd (3)  
*Hymenagaricus* Heinem. (20)  
*Janauaria* Singer (1)  
*Japonogaster* Kobayasi (1)  
*Lepiota* (Pers.) Gray (ca. 450)  
*Leucoagaricus* Locq. ex Singer (ca. 135)  
*Leucocoprinus* Pat. (ca. 50)  
*Lycoperdopsis* Henn. (1)  
*Macrolepiota* Singer (ca. 40)  
*Melanophyllum* Velen. (3)  
*Metrodia* Raithelh. (2)  
*Micropsalliota* Höhn. (ca. 70)  
*Montagnea* Fr. (5)  
*Mycenastrum* Desv. (18)  
*Neosecotium* Singer & A.H. Sm. (2)  
*Panaeolopsis* Singer (4)  
*Phellorinia* Berk. (1)  
*Phyllogaster* Pegler (1)  
*Podaxis* Desv. (10)  
*Pseudoauricularia* Kobayasi (1)  
*Pseudolepiota* Z.W. Ge (1)  
*Queletia* Fr. (2)  
*Rugosopora* Heinem. (2)  
*Schinzinia* Fayod (1)  
*Schizostoma* Ehrenb. ex Lév. (1)  
*Singerina* Sathe & S.D. Deshp. (1)  
*Smithiogaster* J.E. Wright (1)

*Smithiomyces* Singer (3)  
*Termiticola* E. Horak (1)  
*Tulostoma* Pers. (ca. 83)  
*Xanthagaricus* (Heinem.) Little Flower, Hosag. & T.K. Abraham (12)  
*Xerocoprinus* Maire (1)

***Amanitaceae*** E.-J. Gilbert

*Amanita* Pers. (ca. 570)  
*Catatrama* Franco-Mol. (2)  
*Limacella* Earle (ca. 15)  
*Limacellopsis* Zhu L. Yang, Q. Cai & Y.Y. Cui (2)  
*Zhuliangomyces* Redhead (5)

***Biannulariaceae*** Jülich

*Anupama* K.N.A. Raj, K.P.D. Latha & Manim. (1)  
*Callistosporium* Singer (14)  
*Catathelasma* Lovejoy (4)  
*Guyanagarika* Sánchez-García, T.W. Henkel & Aime (3)  
*Macrocybe* Pegler & Lodge (7)  
*Pleurocollybia* Singer (6)  
*Pseudolaccaria* Vizzini, Contu & Z.W. Ge (1)

***Bolbitiaceae*** Singer

*Agrogaster* D.A. Reid (1)  
*Bolbitius* Fr. (ca. 70)  
*Conocybe* Fayod (ca. 221)  
*Cyttarophyllopsis* R. Heim (1)  
*Descolea* Singer (ca. 15)  
*Galerella* Earle (8)  
*Galeropsis* Velen. (9)  
*Gymnoglossum* Masee (1)  
*Pholiotina* Fayod (56)  
*Ptychella* Roze & Boud. (1)  
*Rhodoarrhenia* Singer (8)  
*Tubariella* E. Horak & Hauskn. (1)  
*Tubariopsis* R. Heim (1)  
*Tympanella* E. Horak (1)  
*Wielandomyces* Raitelh. (1)

***Broomeiaceae*** Zeller

*Broomeia* Berk. (2)

***Chromocyphellaceae*** Knudsen

*Chromocyphella* De Toni & Levi (5)

***Clavariaceae*** Chevall.

*Camarophyllopsis* Herink (26)  
*Clavaria* Vaill. ex L. (32)  
*Clavicornia* Doty (10)  
*Clavulinopsis* Overeem (34)  
*Hirticlavula* J.H. Petersen & Læssøe (1)  
*Hodophilus* R. Heim (13)

*Hyphodontiella* Å. Strid (2)  
*Lamelloclavaria* Birkebak & Adamčík (1)  
*Ramariopsis* (Donk) Corner (48)  
*Setigeroclavula* R.H. Petersen (1)

**Cortinariaceae** R. Heim ex Pouzar

*Cortinarius* (Pers.) Gray (ca. 2250)  
*Protoglossum* Masee (8)  
*Pyrrhoglossum* Singer (12)  
*Quadrispora* Bougher & Castellano (3)  
*Stephanopus* M.M. Moser & E. Horak (5)

**Crassisporiaceae** Vizzini, Consiglio & M. Marchetti

*Crassisporium* Matheny, P.-A. Moreau & Vizzini (3)  
*Romagnesiella* Contu, Matheny, P.-A. Moreau, Vizzini & A. de Haan (2)

**Crepidotaceae** (S. Imai) Singer

*Crepidotus* (Fr.) Staude (ca. 200)  
*Episphaeria* Donk (1)  
*Nanstelocephala* Oberw. & R.H. Petersen (1)  
*Pellidiscus* Donk (3)  
*Pleuroflammula* Singer (10)  
*Simocybe* P. Karst. (26)

**Cyphellaceae** Lotsy

*Asterocyphella* W.B. Cooke (3)  
*Campanophyllum* Cifuentes & R.H. Petersen (1)  
*Catilla* Pat. (1)  
*Cheimonophyllum* Singer (4)  
*Chondrostereum* Pouzar (4)  
*Cunninghammyces* Stalpers (2)  
*Cyphella* Fr. (2)  
*Gloeocorticium* Hjortstam & Ryvarde (1)  
*Gloeostereum* S. Ito & S. Imai (1)  
*Granulobasidium* Jülich (1)  
*Hyphoradulum* Pouzar (1)  
*Incrustocalyptella* Agerer (3)  
*Phaeoporothelium* (W.B. Cooke) W.B. Cooke (2)  
*Seticyphella* Agerer (3)  
*Sphaerobasidioscypha* Agerer (2)  
*Thujacorticium* Ginns (1)

**Cystostereaceae** Jülich

*Cericium* Hjortstam (1)  
*Crustomyces* Jülich (3)  
*Cystidodontia* Hjortstam (2)  
*Cystostereum* Pouzar (7)  
*Parvobasidium* Jülich (3)  
*Parvodontia* Hjortstam & Ryvarde (2)  
*Rigidotubus* J. Song, Y.C. Dai & B.K. Cui (1)

**Entolomataceae** Kotl. & Pouzar

*Clitocella* Kluting, T.J. Baroni & Bergemann (6)  
*Clitopilopsis* Maire (2)  
*Clitopilus* (Fr. ex Rabenh.) P. Kumm. (ca. 140)  
*Entocybe* T.J. Baroni, V. Hofst. & Largent (10)  
*Entoloma* P. Kumm. (ca. 1800)  
*Rhodocybe* Maire (ca. 50)  
*Rhodophana* Kühner (7)

***Hemigasteraceae*** Gäum. & C.W. Dodge  
*Hemigaster* Juel (1)

***Hydnangiaceae*** Gäum. & C.W. Dodge  
*Hydnangium* Wallr. (ca. 20)  
*Laccaria* Berk. & Broome (ca. 85)  
*Maccagnia* Mattir. (1)  
*Podohydangium* G.W. Beaton, Pegler & T.W.K. Young (1)

***Hygrophoraceae*** Lotsy  
*Acantholichen* P.M. Jørg. (6)  
*Aeruginospora* Höhn. (2)  
*Ampulloclitocybe* Redhead, Lutzoni, Moncalvo & Vilgalys (3)  
*Aphroditeola* Redhead & Manfr. Binder (1)  
*Arrhenia* Fr. (ca. 36)  
*Cantharocybe* H.E. Bigelow & A.H. Sm. (3)  
*Chromosera* Redhead, Ammirati & Norvell (5)  
*Chrysomphalina* Cléménçon (4)  
*Cora* Fr. (189)  
*Corella* Vain. (2)  
*Cuphophyllus* (Donk) Bon (ca. 25)  
*Cyphellostereum* D.A. Reid (9)  
*Dictyonema* C. Agardh ex Kunth (28)  
*Eonema* Redhead, Lücking & Lawrey (1)  
*Gliophorus* Herink (ca. 17)  
*Haasiella* Kotl. & Pouzar (2)  
*Humidicutis* (Singer) Singer (12)  
*Hygroaster* Singer (3)  
*Hygrocybe* (Fr.) P. Kumm. (ca. 120)  
*Hygrophorus* Fr. (ca. 200)  
*Lichenomphalia* Redhead, Lutzoni, Moncalvo & Vilgalys (14)  
*Neohygrocybe* Herink (5)  
*Porpolomopsis* Bresinsky (5)  
*Pseudoarmillariella* Singer (3)  
*Semiomphalina* Redhead (1)  
*Sinohygrocybe* C.Q. Wang, Ming Zhang & T.H. Li (1)

***Hymenogastraceae*** Vittad.  
*Anamika* K.A. Thomas, Peintner, M.M. Moser & Manim. (3)  
*Flammula* (Fr.) P. Kumm. (ca. 10)  
*Galerina* Earle (ca. 250)  
*Gymnopilus* P. Karst. (ca. 200)  
*Hebeloma* (Fr.) P. Kumm. (ca. 190)  
*Hymenogaster* Vittad. (c.170)

*Naucoria* (Fr.) P. Kumm. (30)  
*Phaeocollybia* R. Heim (ca. 80)  
*Psathyroma* Soop, J.A. Cooper & Dima (2)  
*Psilocybe* (Fr.) P. Kumm. (ca. 326)

***Inocybaceae*** Jülich

*Auritella* Matheny & Bougher (8)  
*Inocybe* (Fr.) Fr. (ca. 1000)  
*Tubariomyces* Esteve-Rav. & Matheny (3)

***Limnoperdaceae*** G.A. Escobar

*Limnoperdon* G.A. Escobar (1)

***Lycoperdaceae*** Chevall.

*Apioperdon* (Kreisel & D. Krüger) Vizzini (1)  
*Bovista* Pers. *Bryoperdon* Vizzini (ca. 58)  
*Calbovista* Morse ex M.T. Seidl (1)  
*Calvatia* Fr. (ca. 43)  
*Gastropila* Homrich & J.E. Wright (4)  
*Lycoperdon* Pers. (ca. 55)  
*Morganella* Zeller (7)

***Lyophyllaceae*** Jülich

*Asterophora* Ditmar (3)  
*Blastosporella* T.J. Baroni & Franco-Mol. (1)  
*Calocybe* Kühner ex Donk (46)  
*Calocybella* Vizzini, Consiglio & Setti (4)  
*Clitolyophyllum* Sesli, Vizzini & Contu (1)  
*Gerhardtia* Bon (ca. 7)  
*Hypsizygus* Singer (3)  
*Lyophyllopsis* Sathe & J.T. Daniel (1)  
*Lyophyllum* P. Karst. (ca. 60)  
*Myochromella* V. Hofst., Cléménçon, Moncalvo & Redhead (2)  
*Ossicaulis* Redhead & Ginns (2)  
*Rugosomyces* Raithelh. (ca. 12)  
*Sagaranelia* V. Hofst., Cléménçon, Moncalvo & Redhead (4)  
*Sphagnurus* Redhead & V. Hofst. (1)  
*Tephrocybe* Donk (ca. 47)  
*Tephrocybella* Picillo, Vizzini & Contu (1)  
*Termitomyces* R. Heim (ca. 34)  
*Tricholomella* Zerova ex Kalamees (1)

***Macrocystidiaceae*** Kühner

*Macrocystidia* Joss. (5)

***Marasmiaceae*** Roze ex Kühner

*Amyloflagellula* Singer (4)  
*Brunneocorticium* Sheng H. Wu (1)  
*Campanella* Henn. (ca. 39)  
*Chaetocalathus* Singer (ca. 20)  
*Crinipellis* Pat. (ca. 65)  
*Hymenogloea* Pat. (1)

*Marasmius* Fr. (ca. 600)  
*Moniliophthora* H.C. Evans, Stalpers, Samson & Benny (7)  
*Neocampanella* Nakasone, Hibbett & Goranova (1)  
*Tetrapyrgos* E. Horak (18)

***Mycenaceae*** Overeem

*Atheniella* Redhead, Moncalvo, Vilgalys, Desjardin & B.A. Perry (7)  
*Cruentomyces* R.H. Petersen, Kovalenko & O.V. Morozova (3)  
*Decapitatus* Redhead & Seifert (1)  
*Favolaschia* (Pat.) Pat. (ca. 54)  
*Flabellimycena* Redhead (1)  
*Heimiomyces* Singer (ca. 7)  
*Hemimycena* Singer (ca. 60)  
*Hydropus* Kühner ex Singer (ca. 100)  
*Mycena* (Pers.) Roussel (ca. 600)  
*Mycopan* Redhead, Moncalvo & Vilgalys (1)  
*Panellus* P. Karst. (ca. 55)  
*Resinomyces* Redhead & Singer (ca. 10)  
*Roridomyces* Rexer (9)  
*Sarcomyxa* P. Karst. (2)  
*Tectella* Earle (3)  
*Xeromphalina* Kühner & Maire (ca. 32)

***Mythicomycetaceae*** Vizzini, Consiglio & M. Marchetti

*Mythicomycetes* Redhead & A.H. Sm. (1)  
*Stagnicola* Redhead & A.H. Sm. (1)

***Niaceae*** Jülich

*Digitatispora* Doguet (2)  
*Flagelloscypha* Donk (ca. 25)  
*Halocyphina* Kohlm. & E. Kohlm. (1)  
*Lachnella* Fr. (6)  
*Maireina* W.B. Cooke (ca. 18)  
*Merismodes* Earle (20)  
*Nia* R.T. Moore & Meyers (3)  
*Peyronelina* P.J. Fisher, J. Webster & D.F. Kane (1)  
*Woldmaria* W.B. Cooke (1)

***Omphalotaceae*** Bresinsky

*Anthracophyllum* Ces. (12)  
*Caripia* Kuntze (1)  
*Connopus* R.H. Petersen (1)  
*Gymnopanella* Sand.-Leiva, J.V. McDonald & Thorn (1)  
*Gymnopus* (Pers.) Gray (ca. 325)  
*Hymenoporus* Tkalčec, Mešić & Chun Y. Deng (1)  
*Lentinula* Earle (8)  
*Marasmiellus* Murrill (ca. 260)  
*Mycetinis* Earle (15)  
*Neonothopanus* R.H. Petersen & Krisai (3)  
*Omphalotus* Fayod (6)  
*Rhodocollybia* Singer (ca. 35)  
*Paragymnopus* J.S. Oliveira (6)



*Pusillomyces* J.S. Oliveira (3)

***Physalacriaceae*** Corner

*Anastrophella* E. Horak & Desjardin (3)  
*Armillaria* (Fr.) Staude (39)  
*Cibaomyces* Zhu L. Yang, Y.J. Hao & J. Qin (1)  
*Cribbea* A.H. Sm. & D.A. Reid (5)  
*Cryptomarasmius* T.S. Jenkinson & Desjardin (15)  
*Cylindrobasidium* Jülich (7)  
*Cyptotrampa* Singer (16)  
*Dactylosporina* (Cléménçon) Dörfelt (5)  
*Desarmillaria* (Herink) R. A. Koch & Aime (2)  
*Epicnaphus* Singer (2)  
*Flammulina* P. Karst. (14)  
*Gloiocephala* Masee (ca. 40)  
*Guyanagaster* T.W. Henkel, M.E. Sm. & Aime (2)  
*Hymenopellis* R.H. Petersen (ca. 50)  
*Laccariopsis* Vizzini (1)  
*Manuripia* Singer (1)  
*Mucidula* Pat. (2)  
*Mycaureola* Maire & Chemin (1)  
*Naiadolina* Redhead, Labbé & Ginns (1)  
*Oudemansiella* Speg. (ca. 20)  
*Paraxerula* R.H. Petersen (4)  
*Physalacria* Peck (33)  
*Ponticulomyces* R.H. Petersen (2)  
*Protoxerula* R.H. Petersen (1)  
*Rhizomarasmius* R.H. Petersen (5)  
*Rhodotus* Maire (2)  
*Strobilurus* Singer (10)  
*Xerula* Maire (ca. 17)

***Pleurotaceae*** Kühner

*Agaricochaete* Eichelb. (4)  
*Hohenbuehelia* Schulzer (ca. 50)  
*Lignomyces* R.H. Petersen & Zmitr. (1)  
*Pleurotus* (Fr.) P. Kumm. (25)  
*Resupinatus* Nees ex Gray (33)

***Pluteaceae*** Kotl. & Pouzar

*Pluteus* Fr. (ca. 500)  
*Volvariella* Speg. (ca. 50)  
*Volvopluteus* Vizzini, Contu & Justo (4)

***Porotheleaceae*** Murrill

*Phloeomana* Redhead (6)  
*Porotheleum* Fr. (ca. 16)

***Psathyrellaceae*** Vilgalys, Moncalvo & Redhead

*Coprinellus* P. Karst. (70)  
*Coprinopsis* P. Karst. (ca. 150)  
*Cystoagaricus* Singer (7)

*Gasteroagaricoides* D.A. Reid (1)  
*Homophron* (Britzelm.) Örstadius & E. Larss. (3)  
*Hormographiella* Guarro & Gené (3)  
*Kauffmania* Örstadius & E. Larss. (1)  
*Lacrymaria* Pat. (14)  
*Macrometrula* Donk & Singer (1)  
*Parasola* Redhead, Vilgalys & Hopple (ca. 27)  
*Psathyrella* (Fr.) Quél. (ca. 420)  
*Rhacophyllus* Berk. & Broome (1)  
*Typhrasa* Örstadius & E. Larss. (2)

***Pseudoclitocybaceae*** Vizzini, Consiglio, P.-A. Moreau & P. Alvarado

*Bonomyces* Vizzini (3)  
*Cleistocybe* Ammirati, A.D. Parker & Matheny (5)  
*Clitopaxillus* G. Moreno, Vizzini, Consiglio & P. Alvarado (2)  
*Harmajaea* Dima, P. Alvarado & Kekki (3)  
*Musumecia* Vizzini & Contu (4)  
*Pogonoloma* (Singer) Sánchez-García (3)  
*Pseudoclitocybe* (Singer) Singer (16)

***Pterulaceae*** Corner

*Actiniceps* Berk. & Broome (6)  
*Allantula* Corner (1)  
*Aphanobasidium* Jülich (17)  
*Chaetotyphula* Corner (7)  
*Coronicium* J. Erikss. & Ryvar den (5)  
*Deflexula* Corner (ca. 11)  
*Lepidomyces* Jülich (2)  
*Merulicium* J. Erikss. & Ryvar den (1)  
*Parapterulicium* Corner (3)  
*Pterula* Fr. (ca. 50)  
*Pterulicium* Corner (1)  
*Radulomyces* M.P. Christ. (10)  
*Radulotubus* Y.C. Dai, S.H. He & C.L. Zhao (1)

***Schizophyllaceae*** Quél.

*Auriculariopsis* Maire (3)  
*Porodisculus* Murrill (2)  
*Schizophyllum* Fr. (6)

***Stephanosporaceae*** Oberw. & E. Horak

*Athelidium* Oberw. (3)  
*Cristinia* Parmasto (10)  
*Lindtneria* Pilát (10)  
*Mayamontana* Castellano, Trappe & Lodge (1)  
*Stephanospora* Pat. (6)

***Strophariaceae*** Singer & A.H. Sm.

*Agrocybe* Fayod (ca. 100)  
*Bogbodia* Redhead (1)  
*Brauniella* Rick ex Singer (1)  
*Deconica* (W.G. Sm.) P. Karst. (44)

*Hypholoma* (Fr.) P. Kumm. (ca. 45)  
*Leratiomyces* Bresinsky & Manfr. Binder ex Bridge, Spooner, Beever & D.C. Park (13)  
*Melanotus* Pat. (ca. 33)  
*Pholiota* (Fr.) P. Kumm. (ca. 157)  
*Protostropharia* Redhead, Moncalvo & Vilgalys (14)  
*Pseudogymnopilus* Raithelh. (1)  
*Stropharia* (Fr.) Quél. (ca. 20)

***Tricholomataceae*** R. Heim ex Pouzar

*Albomagister* Sánchez-García, Birkebak & Matheny (2)  
*Corneriella* Sánchez-García (3)  
*Dennisiomyces* Singer (5)  
*Dermoloma* J.E. Lange ex Herink (ca. 25)  
*Leucopaxillus* Boursier (ca. 16)  
*Porpoloma* Singer (ca. 13)  
*Pseudobaeospora* Singer (ca. 26)  
*Pseudoporpoloma* Vizzini & Consiglio (1)  
*Pseudotricholoma* (Singer) Sánchez-García & Matheny (2)  
*Tricholoma* (Fr.) Staude (ca. 210)

***Tubariaceae*** Vizzini

*Cyclocybe* Velen. (6)  
*Flammulaster* Earle (10)  
*Hemistropharia* Jacobsson & E. Larss. (1)  
*Pachylepyrium* Singer (1)  
*Phaeomarasmius* Scherff. (ca. 20)  
*Pleuromyces* Dima, P.-A. Moreau & V. Papp (1)\*  
*Tubaria* (W.G. Sm.) Gillet (ca. 21)

***Typhulaceae*** Jülich

*Lutypha* Khurana, K.S. Thind & Berthier (1)  
*Macrotyphula* R.H. Petersen (6)  
*Tygervalleyomyces* Crous (1)  
*Typhula* (Pers.) Fr. (ca. 100)

***Agaricales*** genera *incertae sedis*

*Acanthocorticium* Baltazar, Gorjón & Rajchenb. (1)  
*Acinophora* Raf. (1)  
*Aleurocystis* Lloyd ex G. Cunn. (3)  
*Amparoina* Singer (2)  
*Amylolepiota* Harmaja (1)  
*Aphyllotus* Singer (1)  
*Arthromyces* T.J. Baroni & Lodge (2)  
*Arthrosporella* Singer (1)  
*Asproincybe* R. Heim (5)  
*Aspropaxillus* Kühner & Maire (3)  
*Atractosporocybe* P. Alvarado, G. Moreno & Vizzini (2)  
*Austroclitocybe* Raithelh. (2)  
*Austroomphaliaster* Garrido (1)  
*Baeospora* Singer (13)  
*Callistodermatium* Singer (1)  
*Calyptella* Quél. (20)

*Caulorhiza* Lennox (3)  
*Cellypha* Donk (10)  
*Cephaloscypha* Agerer (1)  
*Cercopomyces* T.J. Baroni, Kropp & V.S. Evenson (3)  
*Clavomphalia* E. Horak (1)  
*Clitocybe* (Fr.) Staude (ca. 300)  
*Clitocybula* (Singer) Singer ex Métrod (25)  
*Coccobotrys* Boud. & Pat. (2)  
*Collybia* (Fr.) Staude (3)  
*Conchomyces* Overeem (2)  
*Crucibulum* Tul. & C. Tul. (7)  
*Cyathus* Haller (ca. 59)  
*Cymatella* Pat. (4)  
*Cymatellopsis* Parmasto (1)  
*Cynema* Maas Geest. & E. Horak (1)  
*Cyphellocalathus* Agerer (1)  
*Cystoderma* Fayod (ca. 36)  
*Cystodermella* Harmaja (16)  
*Deigloria* Agerer (5)  
*Delicatula* Fayod (ca. 3)  
*Dendrocollybia* R.H. Petersen & Redhead (1)  
*Dendrothele* Höhn. & Litsch. (58)  
*Disporotrichum* Stalpers (1)  
*Fayodia* Kühner (ca. 10)  
*Fibulochlamys* A.I. Romero & Cabral (2)  
*Fissolimbus* E. Horak (1)  
*Fistulina* Bull. (9)  
*Floccularia* Pouzar (6)  
*Gamundia* Raithelh. (ca. 7)  
*Gerronema* Singer (58)  
*Giacomia* Vizzini & Contu (1)  
*Glabrocypbella* W.B. Cooke (12)  
*Gloioxanthomyces* Lodge, Vizzini, Ercole & Boertm. (2)  
*Gramincola* Velen. (1)  
*Hemipholiota* (Singer) Bon (2)\*  
*Henningsomyces* Kuntze (ca. 21)  
*Hispidocalyptella* E. Horak & Desjardin (1)  
*Hygrophorocybe* Vizzini & Contu (1)  
*Infundibulicybe* Harmaja (22)  
*Lactocollybia* Singer (20)  
*Lecanocybe* Desjardin & E. Horak (1)  
*Lepista* (Fr.) W.G. Sm. (ca. 50)  
*Lepistella* T.J. Baroni & Ovrebo (ca. 50)  
*Leucocalocybe* X.D. Yu & Y.J. Yao (1)  
*Leucocortinarius* (J.E. Lange) Singer (1)  
*Leucocybe* Vizzini, P. Alvarado, G. Moreno & Consiglio (3)  
*Leucoinocybe* Singer ex Antonín, Borovička, Holec & Kolařík (3)  
*Leucopholiota* (Romagn.) O.K. Mill., T.J. Volk & Bessette (2)  
*Lignomphalia* Antonín, Borovička, Holec & Kolařík (1)  
*Lulesia* Singer (3)  
*Lycogalopsis* E. Fisch. (1)  
*Megacollybia* Kotl. & Pouzar (9)

*Melanoleuca* Pat. (ca. 60)  
*Melanomphalia* M.P. Christ. (1)  
*Meotatomyces* Vizzini (1)  
*Mesophelliopsis* Bat. & A.F. Vital (1)  
*Metraria* (Cooke) Cooke & Massee (2)  
*Metulocyphella* Agerer (2)  
*Mucronella* Fr. (8)  
*Mycenella* (J.E. Lange) Singer (10)  
*Mycoalvimia* Singer (1)  
*Mycocalia* J.T. Palmer (7)  
*Mycospongia* Velen. (1)  
*Myxomphalia* Hora (ca. 2)  
*Neoclitocybe* Singer (11)  
*Neopaxillus* Singer (6)  
*Nidula* V.S. White (6)  
*Nidularia* Fr. (3)  
*Nochascypha* Agerer (3)  
*Notholepista* Vizzini & Contu (1)  
*Omphaliaster* Lamoure (7)  
*Omphalina* Quél. (ca. 50)  
*Palaeocephala* Singer (1)  
*Panaeolina* Maire (2)  
*Panaeolus* (Fr.) Quél. (15)  
*Paralepistopsis* Vizzini (2)  
*Peglerochaete* Sarwal & Locq. (1)  
*Pegleromyces* Singer (1)  
*Phaeodepas* D.A. Reid (2)  
*Phaeolepiota* Maire ex Konrad & Maubl. (1)  
*Phaeomycena* R. Heim ex Singer & Digilio (5)  
*Phaeopholiota* Locq. & Sarwal (1)  
*Phlebonema* R. Heim (1)  
*Phlebophyllum* R. Heim (1)  
*Phyllotopsis* E.-J. Gilbert & Donk ex Singer (5)  
*Physocystidium* Singer (1)  
*Pleurella* E. Horak (1)  
*Pleurocybella* Singer (5)  
*Plicatura* Peck (1)  
*Polygaster* Fr. (1)  
*Pseudoclitopilus* Vizzini & Contu (2)  
*Pseudofistulina* O. Fidalgo & M. Fidalgo (3)  
*Pseudohiatula* (Singer) Singer (ca. 5)  
*Pseudohygrophorus* Velen. (1)  
*Pseudolasiobolus* Agerer (1)  
*Pseudoomphalina* (Singer) Singer (ca. 6)  
*Pseudotyphula* Corner (1)  
*Radulomycetopsis* Dhingra, Priyanka & J. Kaur (1)  
*Rectipilus* Agerer (11)  
*Rhizocybe* Vizzini, G. Moreno, P. Alvarado & Consiglio (4)  
*Rimbachia* Pat. (11)  
*Ripartitella* Singer (1)  
*Ripartites* P. Karst. (5)  
*Secotium* Kunze (ca. 10)

*Singerocybe* Harmaja (7)  
*Skepperiella* Pilát (4)  
*Squamanita* Imbach (10)  
*Stanglomyces* Raitelh. (1)  
*Stemastrum* Raf. (1)  
*Stromatocyphella* W.B. Cooke (3)  
*Tephroderma* Contu & Musumeci (1)  
*Trichocybe* Vizzini (1)  
*Tricholomopsis* Singer (ca. 33)  
*Tricholosporum* Guzmán (7)  
*Trogia* Fr. (ca. 94)  
*Ugola* Adans. (3)  
*Vanromburghia* Holterm. (1)  
*Verrucospora* E. Horak (2)

***Amylocorticiales*** K.H. Larss., Manfr. Binder & Hibbett

***Amylocorticaceae*** Jülich

*Amyloathelia* Hjortstam & Ryvarden (3)  
*Amylocorticiellum* Spirin & Zmitr. (4)  
*Amylocorticium* Pouzar (11)  
*Amyloxyenasma* (Oberw.) Hjortstam & Ryvarden (6)  
*Anomoloma* Niemelä & K.H. Larss. (6)  
*Anomoporia* Pouzar (8)  
*Ceraceomyces* Jülich (16)  
*Irpicodon* Pouzar (1)  
*Plicaturopsis* D.A. Reid (2)  
*Podoserpula* D.A. Reid (2)  
*Serpulomyces* (Zmitr.) Zmitr. (1)

***Atheliales*** Jülich

***Atheliaceae*** Jülich

*Amphinema* P. Karst. (4)  
*Athelia* Pers. (32)  
*Athelium* K.H. Larss. & Hjortstam (2)  
*Athelocystis* Hjortstam & Ryvarden (1)  
*Athelopsis* Oberw. ex Parmasto (14)  
*Butlerelfia* Weresub & Illman (1)  
*Bysocorticium* Bondartsev & Singer (11)  
*Elaphocephala* Pouzar (1)  
*Hypochnella* J. Schröt. (2)  
*Hypochniciellum* Hjortstam & Ryvarden (1)  
*Leptosporomyces* Jülich (15)  
*Lobulium* K.H. Larss. & Hjortstam (1)  
*Lyoathelia* Hjortstam & Ryvarden (1)  
*Melzerium* Hauerslev (3)  
*Mycostigma* Jülich (1)  
*Piloderma* Jülich (6)  
*Pteridomyces* Jülich (4)  
*Taeniospora* Marvanová (2)  
*Tretomyces* K.H. Larss., Kotir. & Saaren. (2)  
*Tylospora* Donk (2)

***Auriculariales*** J. Schröt.

***Auriculariaceae*** Fr.

- Amphistereum* Spirin & Malysheva (2)
- Auricularia* Bull. (ca. 21)
- Eichleriella* Bres. (ca. 14)
- Elmerina* Bres. (7)
- Exidia* Fr. (ca. 26)
- Exidiopsis* (Bref.) Möller (ca. 30)
- Fibulosebacea* K. Wells & Raitv. (1)
- Heterochaete* Pat. (ca. 40)
- Heteroradulum* Lloyd ex Spirin & Malysheva (7)
- Protodaedalea* Imazeki (2)
- Pseudostypella* McNabb (1)
- Sclerotrema* Spirin & Malysheva (1)

***Hyaloriaceae*** Lindau

- Helicomysa* R. Kirschner & Chee J. Chen (1)
- Hyaloria* Möller (3)
- Myxarium* Wallr. (14)

***Auriculariales*** genera *incertae sedis*

- Basidiodendron* Rick (ca. 15)
- Bourdotia* (Bres.) Bres. & Torrend (1)
- Ceratosebacina* P. Roberts (3)
- Dendrogloeon* Spirin & Miettinen (1)
- Ductifera* Lloyd (ca. 11)
- Endoperplexa* P. Roberts (6)
- Gelacantha* V. Malysheva & Spirin (1)
- Grammatus* H.S. Yuan & C. Decock (2)
- Guepinia* Fr. (1)
- Hauerslevia* P. Roberts (1)
- Heterorepetobasidium* Chee J. Chen & Oberw. (2)
- Heteroscypha* Oberw. & Agerer (1)
- Hyalodon* V. Malysheva & Spirin (2)
- Hydrophana* V. Malysheva & Spirin (1)
- Metabourdotia* L.S. Olive (1)
- Microsebacina* P. Roberts (2)
- Mycostilla* Spirin & V. Malysheva (1)
- Myxariellum* Spirin & V. Malysheva (2)
- Ofella* Spirin & V. Malysheva (1)
- Porpopycnis* R. Kirschner (1)
- Protoacia* Spirin & V. Malysheva (1)
- Protodontia* Höhn. (3)
- Protograndinia* Rick (1)
- Protohydnum* Möller (3)
- Protomerulius* Möller (7)
- Protoradulum* Rick (1)
- Pseudohydnum* P. Karst. (1)
- Renatobasidium* Hauerslev (1)
- Stypella* Möller (4)
- Stypellopsis* Spirin & V. Malysheva (2)
- Tremellacantha* Jülich (1)

**Boletales** E.-J. Gilbert

**Boletaceae** Chevall.

- Afroboletus* Pegler & T.W.K. Young (8)  
*Afrocastellanoa* M.E. Sm. & Orihara (1)  
*Alessioporos* Gelardi, Vizzini & Simonini (2)  
*Aureoboletus* Pouzar (33)  
*Australopilus* Halling & N.A. Fechner (1)  
*Austroboletus* (Corner) Wolfe (ca. 36)  
*Baorangia* G. Wu & Zhu L. Yang (4)  
*Binderoboletus* T.W. Henkel & M.E. Sm. (1)  
*Boletellus* Murrill (ca. 50)  
*Boletochaete* Singer (5)  
*Boletus* L. (ca. 350)  
*Borofutus* Hosen & Zhu L. Yang (1)  
*Bothia* Halling, T.J. Baroni & Manfr. Binder (2)  
*Buchwaldoboletus* Pilát (11)  
*Butyriboletus* Arora & J.L. Frank (ca. 25)  
*Caloboletus* Vizzini (14)  
*Carolinigaster* M.E. Sm. & S. Cruz (1)  
*Castellanea* T.W. Henkel & M.E. Sm. (1)  
*Chalciporus* Bataille (ca. 30)  
*Chamonixia* Rolland (8)  
*Chiua* Y.C. Li & Zhu L. Yang (4)  
*Corneroboletus* N.K. Zeng & Zhu L. Yang (1)  
*Costatisporus* T.W. Henkel & M.E. Sm. (1)  
*Crocinoletus* N.K. Zeng, Zhu L. Yang & G. Wu (2)  
*Cupreoboletus* Simonini, Gelardi & Vizzini (1)  
*Cyanoboletus* Gelardi, Vizzini & Simonini (7)  
*Durianella* Desjardin, A.W. Wilson & Manfr. Binder (1)  
*Erythrophylloporus* Ming Zhang & T.H. Li (1)  
*Fistulinella* Henn. (ca. 25)  
*Gastroboletus* Lohwag (14)  
*Gastroleccinum* Thiers (1)  
*Guyanaporus* T.W. Henkel & M.E. Sm. (1)  
*Gymnogaster* J.W. Cribb (1)  
*Harrya* Halling, Nuhn & Osmundson (6)  
*Heimioporus* E. Horak (14)  
*Heliogaster* Orihara & K. Iwase (1)  
*Hemileccinum* Šutara (5)  
*Hortiboletus* Simonini, Vizzini & Gelardi (7)  
*Hourangia* Xue T. Zhu & Zhu L. Yang (4)  
*Hymenoboletus* Y.C. Li & Zhu L. Yang (1)  
*Imleria* Vizzini (5)  
*Imperator* G. Koller, Assyov, Bellanger, Bertéa, Loizides, G. Marques, P.-A. Moreau, J.A. Muñoz, Oppicelli, Puddu & F. Richard (3)  
*Indoporus* A. Parihar, K. Das, Hembrom & Vizzini (1)  
*Ionosporus* O. Khmel'nitsky (2)  
*Jimtrappea* T.W. Henkel, M.E. Sm. & Aime (2)  
*Kombocles* Castellano, T.W. Henkel & Dentinger (1)  
*Lanmaoa* G. Wu & Zhu L. Yang (7)  
*Leccinellum* Bresinsky & Manfr. Binder (17)  
*Leccinum* Gray (ca. 130)



*Mackintoshia* Pacioni & Sharp (1)  
*Mucilopilus* Wolfe (1)  
*Mycoamaranthus* Castellano, Trappe & Malajczuk (3)  
*Neoboletus* Gelardi, Simonini & Vizzini (11)  
*Nigroboletus* Gelardi, Vizzini, E. Horak, T.H. Li & Ming Zhang (1)  
*Octaviania* Vittad. (ca. 40)  
*Parvixerocomus* G. Wu & Zhu L. Yang (2)  
*Paxillogaster* E. Horak (1)  
*Phylloboletellus* Singer (1)  
*Phyllobolites* Singer (1)  
*Phylloporus* Quél. (ca. 90)  
*Porphyrellus* E.-J. Gilbert (ca. 20)  
*Pseudoaustroboletus* Y.C. Li & Zhu L. Yang (3)  
*Pseudoboletus* Šutara (2)  
*Pulchroboletus* Gelardi, Vizzini & Simonini (1)  
*Pulveroboletus* Murrill (38)  
*Retiboletus* Manfr. Binder & Bresinsky (12)  
*Rheubarbariboletus* Vizzini, Simonini & Gelardi (2)  
*Rhodactina* Pegler & T.W.K. Young (3)  
*Rossbiveera* T. Lebel, Orihara & N. Maek. (10)  
*Royoungia* Castellano, Trappe & Malajczuk (6)  
*Rubroboletus* Kuan Zhao & Zhu L. Yang (14)  
*Rugiboletus* G. Wu & Zhu L. Yang (2)  
*Setogyroporus* Heinem. & Rammeloo (1)  
*Singerocomus* T.W. Henkel & M.E. Sm. (2)  
*Singeromyces* M.M. Moser (1)  
*Soliococcus* Trappe, Osmundson, Manfr. Binder, Castellano & Halling (1)  
*Spongiforma* Desjardin, Manfr. Binder, Roekring & Flegel (2)  
*Spongispora* G. Wu, S.M.L. Lee, E. Horak & Zhu L. Yang (1)  
*Strobilomyces* Berk. (ca. 27)  
*Suillellus* Murrill (23)  
*Sutorius* Halling, Nuhn & N.A. Fechner (2)  
*Tengioboletus* G. Wu & Zhu L. Yang (2)  
*Tubosaeta* E. Horak (6)  
*Turmalinea* Orihara & N. Maek. (4)  
*Tylocinum* Y.C. Li & Zhu L. Yang (1)  
*Tylopilus* P. Karst. (ca. 100)  
*Veloporphyrellus* L.D. Gómez & Singer (7)  
*Wakefieldia* Corner & Hawker (2)  
*Xanthoconium* Singer (10)  
*Xerocomellus* Šutara (17)  
*Xerocomus* Quél. (ca. 120)  
*Zangia* Y.C. Li & Zhu L. Yang (6)

***Boletinellaceae*** P.M. Kirk, P.F. Cannon & J.C. David

*Boletinellus* Murrill (1)  
*Phlebopus* (R. Heim) Singer (14)

***Calostomataceae*** E. Fisch.

*Calostoma* Desv. (16)

***Coniophoraceae*** Ulbr.

*Chrysoconia* McCabe & G.A. Escobar (1)  
*Coniophora* DC. (20)  
*Coniophoropsis* Hjortstam & Ryvarde (2)  
*Gyrodontium* Pat. (3)  
*Sedecula* Zeller (1)

***Diplocystidiaceae*** Kreisel

*Astraeus* Morgan (11)  
*Diplocystis* Berk. & M.A. Curtis (2)  
*Endogonopsis* R. Heim (1)  
*Tremellogaster* E. Fisch. (1)

***Gasterellaceae*** Zeller

*Gasterella* Zeller & L.B. Walker (1)

***Gomphidiaceae*** Maire ex Jülich

*Chroogomphus* (Singer) O.K. Mill. (25)\*  
*Cystogomphus* Singer (1)  
*Gomphidius* Fr. (10)  
*Gomphogaster* O.K. Mill. (1)

***Gyroporaceae*** (Singer) Manfr. Binder & Bresinsky

*Gyroporus* Qué. (24)

***Hygrophoropsidaceae*** Kühner

*Hygrophoropsis* (J. Schröt.) Maire ex Martin-Sans (16)  
*Leucogyrophana* Pouzar (13)

***Paxillaceae*** Lotsy

*Alpova* C.W. Dodge (16)  
*Austrogaster* Singer (4)  
*Gyrodon* Opat. (10)  
*Hoehnelogaster* Lohwag (1)  
*Hydnomerulius* Jarosch & Besl (1)  
*Meiorganum* R. Heim (3)  
*Melanogaster* Corda (ca. 26)  
*Neoalpova* Vizzini (1)  
*Paragyrodon* (Singer) Singer (1)  
*Paxillus* Fr. (19)

***Protogastraceae*** Zeller

*Protogaster* Thaxt. (1)

***Rhizopogonaceae*** Gäum. & C.W. Dodge

*Fevansia* Trappe & Castellano (1)  
*Rhizopogon* Fr. (ca. 157)  
*Rhopalogaster* J.R. Johnst. (1)

***Sclerodermataceae*** Corda

*Chlorogaster* Læssøe & Jalink (1)  
*Favillea* Fr. (2)  
*Horakiella* Castellano & Trappe (2)

*Pisolithus* Alb. & Schwein. (17)

*Scleroderma* Pers. (ca. 46)

***Serpulaceae*** Jarosch & Bresinsky

*Austropaxillus* Bresinsky & Jarosch (9)

*Gymnopaxillus* E. Horak (4)

*Serpula* (Pers.) Gray (ca. 11)

***Suillaceae*** Besl & Bresinsky

*Psiloboletinus* Singer (1)

*Suillus* Gray (ca. 60)

***Tapinellaceae*** C. Hahn

*Bondarcevomyces* Parmasto (1)

*Pseudomerulius* Jülich (4)

*Tapinella* E.-J. Gilbert (2)

***Boletales*** genera *incertae sedis*

*Corditubera* Henn. (5)

*Corneromyces* Ginns (2)

*Marthanella* States & Fogel (1)

*Phaeoradulum* Pat. (1)

***Cantharellales*** Gäum.

***Aphelariaceae*** Corner

*Aphelaria* Corner (20)

*Phaeoaphelaria* Corner (1)

*Tumidapexus* D.A. Crawford (1)

***Botryobasidiaceae*** Jülich

*Acladium* Link (20)

*Allescheriella* Henn. (5)

*Alysidium* Kunze (4)

*Botryobasidium* Donk (ca. 58)

*Suillosporium* Pouzar (4)

***Ceratobasidiaceae*** G.W. Martin

*Ceratobasidium* D.P. Rogers (ca. 19)

*Ceratoporia* Ryvarden & de Meijer (1)

*Ceratorhiza* R.T. Moore (7)

*Rhizoctonia* DC. (ca. 50)

*Scotomyces* Jülich (1)

*Thanatephorus* Donk (12)

***Hydnaceae*** Chevall.

*Burgoa* Goid. (9)

*Burgella* Diederich & Lawrey (2)

*Burgellopsis* Diederich & Lawrey (1)

*Cantharellus* Adans.ex Fr. (ca. 300)

*Clavulina* J. Schröt. (ca. 75)

*Corallofungus* Kobayasi (2)

*Craterellus* Pers. (ca. 80)

*Gloeomucro* R.H. Petersen (10)  
*Hydnum* L. (49)  
*Ingoldiella* D.E. Shaw (3)  
*Membranomyces* Jülich (1)  
*Multiclavula* R.H. Petersen (13)  
*Neoburgoa* Diederich, E. Zimm. & Lawrey (1)  
*Parastereopsis* Corner (1)  
*Osteomorpha* G. Arnaud ex Watling & W.B. Kendr. (1)  
*Paullicorticiium* J. Erikss. (5)  
*Repetobasidiellum* J. Erikss. & Hjortstam (1)  
*Repetobasidium* J. Erikss. (12)  
*Rogersiomyces* J.L. Crane & Schokn. (2)  
*Sistotrema* Fr. (ca. 55)  
*Sistotremella* Hjortstam (3)

***Oliveoniaceae*** P. Roberts  
*Oliveonia* Donk (5)

***Tulasnellaceae*** Juel  
*Pseudotulasnella* Lowy (1)  
*Tulasnella* J. Schröt. (ca. 70)

***Cantharellales*** genera *incertae sedis*  
*Boidinella* Nakasone (2)  
*Bulbilla* Diederich, Flakus & Etayo (1)  
*Clavulicium* Boidin (3)  
*Minimedusa* Weresub & P.M. LeClair (3)  
*Odontiochaete* Rick (1)  
*Radulochaete* Rick (2)  
*Schildia* Franchi & M. Marchetti (1)  
*Stilbotulasnella* Oberw. & Bandoni (1)

***Corticiales*** K.H. Larss.

***Corticaceae*** Herter  
*Capillosclerotium* Prameela & Deeba (1)  
*Corticirama* Pilát (2)  
*Corticium* Pers. (25)  
*Erythricium* J. Erikss. & Hjortstam (6)  
*Galzinia* Bourdot (9)  
*Giulia* Tassi (1)  
*Laetisaria* (Burds. (7)  
*Lawreymyces* Lücking & Moncada (7)  
*Marchandiomyces* Diederich & D. Hawksw. (3)  
*Necator* Masee (1)  
*Tretopileus* B.O. Dodge (3)  
*Waitea* Warcup & P.H.B. Talbot (1)

***Dendrominiaceae*** Ghobad-Nejhad  
*Dendrominia* Ghobad-Nejhad & Duhem (4)

***Punctulariaceae*** Donk  
*Dendrocorticium* M.J. Larsen & Gilb. (9)

*Punctularia* Pat. (2)  
*Punctulariopsis* Ghobad-Nejhad (4)

**Vuilleminiaceae** Maire ex Lotsy

*Australovuilleminia* Ghobad-Nejhad & Hallenb. (1)  
*Cytidia* Quéf. (5)  
*Vuilleminia* Maire (8)

**Corticiales** genera *incertae sedis*

*Ambivina* Katz (1)  
*Amylobasidium* Ginns (1)  
*Leptocorticium* Hjortstam & Ryvarden (8)  
*Melzerodontia* Hjortstam & Ryvarden (3)  
*Nothocorticium* Gresl. & Rajchenb. (1)  
*Papyrodiscus* D. A. Reid (1)  
*Ripexicium* Hjortstam (1)

**Geastrales** K. Hosaka & Castellano

**Geastraceae** Corda

*Geasteroides* Long (1)  
*Geastrum* Pers. (130)  
*Myriostoma* Desv. (4)  
*Nidulariopsis* Greis (2)  
*Phialastrum* Sunhede (1)  
*Schenella* T. Macbr. (4)  
*Sphaerobolus* Tode (3)

**Sclerogastraceae** Locq. ex P. M. Kirk

*Sclerogaster* R. Hesse (11)

**Geastrales** genus *incertae sedis*

*Boninogaster* Kobayasi (1)

**Gloeophyllales** Thorn

**Gloeophyllaceae** Jülich

*Boreostereum* Parmasto (4)  
*Campylomyces* Nakasone (2)  
*Chaetodermella* Rauschert (1)  
*Gloeophyllum* P. Karst. (13)  
*Griseoporia* Ginns (2)  
*Heliocybe* Redhead & Ginns (1)  
*Hispidaedalea* Y. C. Dai & S.H. He (1)  
*Mycothele* Jülich (1)  
*Neolentinus* Redhead & Ginns (14)  
*Osmoporus* Singer (2)  
*Stiptophyllum* Ryvarden (1)  
*Veluticeps* Cooke (12)

**Gloeophyllales** genus *incertae sedis*

*Pileodon* P. Roberts & Hjortstam (2)

**Gomphales** Jülich

**Clavariadelphaceae** Corner

- Beenakia* D. A. Reid (7)
- Clavariadelphus* Donk (20)

**Gomphaceae** Donk

- Araeocoryne* Corner (1)
- Ceratellopsis* Konrad & Maubl. (9)
- Delentaria* Corner (1)
- Destuntzia* Fogel & Trappe (5)
- Gautieria* Vittad. (37)
- Gloeocantharellus* Singer (12)
- Gomphus* Pers. (7)
- Phaeoclavulina* Brinkmann (41)
- Protogautieria* A. H. Sm. (2)
- Pseudogomphus* R. Heim (1)
- Ramaria* Fr. ex Bonord. (230)
- Ramaricium* J. Erikss. (5)
- Terenodon* Maas Geest. (1)
- Turbinellus* Earle (5)

**Lentariaceae** Jülich

- Hydnocristella* R.H. Petersen (2)
- Kavinia* Pilát (4)
- Lentaria* Corner (19)

**Hymenochaetales** Oberw.

**Hymenochaetaceae** Donk

- Arambarria* Rajchenb. & Pildain (1)
- Asterodon* Pat. (1)
- Aurificaria* D.A. Reid (2)
- Botryodontia* (Hjortstam & Ryvarden) Hjortstam (6)
- Clavariachaete* Corner (2)
- Coltricia* Gray (40)
- Coltriciella* Murrill (13)
- Coniferiporia* L.W. Zhou & Y. C. Dai (3)
- Cylindrosporus* L.W. Zhou (1)
- Deviodontia* (Parmasto) Hjortstam & Ryvarden (1)
- Dichochaete* Parmasto (2)
- Erythromyces* Hjortstam & Ryvarden (1)
- Fomitiporella* Murrill (13)
- Fomitiporia* Murrill (46)
- Fulvifomes* Murrill (33)
- Fuscoporia* Murrill (62)
- Hastodontia* (Parmasto) Hjortstam & Ryvarden (2)
- Hydnochaete* Bres. (1)
- Hymenochaete* Lév. (149)
- Hymenochaetopsis* S. H. He & Jiao Yang (16)
- Inocutis* Fiasson & Niemelä (9)
- Inonotopsis* Parmasto (1)
- Inonotus* P. Karst. (120)
- Mensularia* Lázaro Ibiza (6)
- Neomensularia* F. Wu, L. W. Zhou & Y.C. Dai (4)

*Nothophellinus* Rajchenb. (1)  
*Onnia* P. Karst. (8)  
*Phellinidium* (Kotl.) Fiasson & Niemelä (5)  
*Phellinopsis* Y. C. Dai (10)  
*Phellinotus* Drechsler-Santos, Robledo & Rajchenb. (2)  
*Phellinus* Quél. (202)  
*Phellopilus* Niemelä, T. Wagner & M. Fisch. (1)  
*Phylloporia* Murrill (38)  
*Porodaedalea* Murrill (14)  
*Pseudoinonotus* T. Wagner & M. Fisch. (8)  
*Pyrrhoderma* Imazeki (2)  
*Sanghuangporus* Sheng H. Wu, L.W. Zhou & Y. C. Dai (13)  
*Tropicoporus* L.W. Zhou, Y. C. Dai & Sheng H. Wu (12)  
*Tubulicrinis* Donk (34)  
*Xanthoporia* Murrill (3)

***Neoantrodiaellaceae*** Y.C. Dai, B. K. Cui, Jia J. Chen & H. S. Yuan  
*Neoantrodiaella* Y. C. Dai, B. K. Cui, Jia J. Chen & H.S. Yuan (2)

***Nigrofomitaceae*** Jülich  
*Nigrofomes* Murrill (3)

***Oxyporaceae*** Zmitr. & V. Malysheva  
*Oxyporus* (Bourdot & Galzin) Donk (18)

***Rickenellaceae*** Vizzini  
*Alloclavaria* Dentinger & D. J. McLaughlin (1)  
*Atheloderma* Parmasto (2)  
*Contumyces* Redhead, Moncalvo, Vilgalys & Lutzoni (3)  
*Cotylidia* P. Karst. (10)  
*Globulicium* Hjortstam (1)  
*Peniophorella* P. Karst. (25)  
*Resinicium* Parmasto (8)  
*Rickenella* Raitheh. (10)

***Schizoporaceae*** Jülich  
*Alutaceodontia* (Parmasto) Hjortstam & Ryvarden (1)  
*Basidioradulum* Nobles (1)  
*Echinoporia* Ryvarden (3)  
*Fibrodontia* Parmasto (6)  
*Hyphodontia* J. Erikss. (86)  
*Lagarobasidium* Jülich (5)  
*Leucophellinus* Bondartsev & Singer (1)  
*Paratrichaptum* Corner (1)  
*Poriodontia* Parmasto (1)  
*Rogersella* Liberta & A.J. Navas (1)  
*Odontiopsis* Hjortstam & Ryvarden (2)  
*Schizopora* Velen. (7)  
*Xylodon* (Pers.) Gray (60)

***Hymenochaetales*** genera *incertae sedis*  
*Caeruleomyces* Stalpers (1)

*Cantharellopsis* Kuyper (1)  
*Cyanotrama* Ghobad-Nejhad & Y.C. Dai (1)  
*Fibricium* J. Erikss. (5)  
*Ginnsia* Sheng H. Wu & Hallenb. (1)  
*Gyroflexus* Raitelh. (1)  
*Kurtia* Karasiński (3)  
*Lawrynomycetes* Karasiński (1)  
*Muscinipta* Redhead, Lücking & Lawrey (1)  
*Physodontia* Ryvarden & H. Solheim (1)  
*Sidera* Miettinen & K. H. Larss. (6)  
*Skvortzovia* Bononi & Hjortstam (1)  
*Subulicium* Hjortstam & Ryvarden (3)  
*Trichaptum* Murrill (27)  
*Tsugacorticium* Nakasone & Burds. (1)

***Hysterangiales*** K. Hosaka & Castellano

***Gallaceaceae*** Locq. ex P. M. Kirk

*Austrogautieria* E. L. Stewart & Trappe (7)  
*Gallacea* Lloyd (6)  
*Hallingea* Castellano (3)

***Hysterangiaceae*** E. Fisch.

*Aroramyces* Castellano & Verbeken (5)  
*Circulocolumella* S. Ito & S. Imai (1)  
*Clathrogaster* Petri (2)  
*Hysterangium* Vittad. (54)

***Mesophelliaceae*** Jülich

*Andebbia* Trappe, Castellano & Amar. (1)  
*Castoreum* Cooke & Masee (3)  
*Chondrogaster* Maire (2)  
*Gummiglobus* Trappe, Castellano & Amar. (2)  
*Gummivena* Trappe & Bougher (1)  
*Malajczukia* Trappe & Castellano (8)  
*Mesophellia* Berk. (15)  
*Nothocastoreum* G. W. Beaton (1)

***Phallogastraceae*** Locq.

*Phallogaster* Morgan (1)  
*Protubera* Möller (13)

***Trappeaceae*** P.M. Kirk

*Phallobata* G. Cunn. (1)  
*Restingomyces* Sulzbacher, Grebenc & Baseia (1)  
*Trappea* Castellano (1)

***Jaapiales*** Manfr. Binder, K. H. Larss. & Hibbett

***Jaapiaceae*** Manfr. Binder, K. H. Larss. & Hibbett

*Jaapia* Bres. (2)

***Lepidostromatales*** B.P. Hodk. & Lücking

***Lepidostromataceae*** Ertz, Eb. Fisch., Killmann, Sérus. & Lawrey



*Ertzia* B.P. Hodk. & Lücking (1)  
*Lepidostroma* Mägd. & S. Winkl. (1)  
*Sulzbacheromyces* B. P. Hodk. & Lücking (6)

**Phallales** E. Fisch.

**Claustulaceae** G. Cunn.

*Claustula* K.M. Curtis (1)  
*Gelopellis* Zeller (6)  
*Kjeldsenia* W. Colgan, Castellano & Bougher (1)  
*Phlebogaster* Fogel (2)  
*Pseudogelopellis* K. Tao & B. Liu (1)

**Gastrosporiaceae** Pilát

*Gastrosporium* Mattir. (2)

**Phallaceae** Corda

*Abrachium* Baseia & T. S. Cabral (1)  
*Aporophallus* Möller (1)  
*Aseroë* Labill. (2)  
*Blumenavia* Möller (3)  
*Calvarula* Zeller (1)  
*Clathrus* P. Micheli ex L. (20)  
*Colus* Cavalier & Séchier (4)  
*Echinophallus* Henn. (1)  
*Endoclathrus* B. Liu, Yin H. Liu & Z.J. Gu (1)  
*Endophallus* M. Zang & R. H. Petersen (1)  
*Ileodictyon* Tul. & C. Tul. (2)  
*Itajahya* Möller (4)  
*Kobayasia* S. Imai & A. Kawam. (1)  
*Laternea* Turpin (2)  
*Ligiella* J.A. Sáenz (1)  
*Lysurus* Fr. (30)  
*Mutinus* Fr. (21)  
*Neolysurus* O. K. Mill., Ovrebo & Burk (1)  
*Phallus* Junius ex L. (34)  
*Protuberella* S. Imai & A. Kawam. (1)  
*Pseudoclathrus* B. Liu & Y.S. Bau (5)  
*Pseudocolus* Lloyd (2)  
*Staheliomyces* E. Fisch. (1)  
*Staurophallus* Mont. (1)  
*Stephanophallus* MacOwan (1)  
*Xylophallus* (Schltdl.) E. Fisch. (2)

**Phallales** genera *incertae sedis*

*Saprogaster* Fogel & States (1)  
*Vandasiasia* Velen. (1)

**Polyporales** Gäum.

**Cerrenaceae** Miettinen, Justo & Hibbett

*Cerrena* Gray (7)  
*Irpiciporus* Murrill (1)  
*Pseudolagarobasidium* J. C. Jang & T. Chen (7)

*Radulodon* Ryvarden (11)

***Dacrybolaceae*** Jülich

*Amylocystis* Bondartsev & Singer ex Singer (1)

*Dacryobolus* Fr. (7)

*Jahnoporus* Nuss (4)

*Oligoporus* Bref. (15)

*Osteina* Donk (1)

*Postia* Fr. (40)

*Spongiporus* Murrill (7)

***Fomitopsidaceae*** Jülich\*

*Adustoporia* Audet (1)

*Anthoporia* Karasiński & Niemelä (1)

*Antrodia* P. Karst. (80)

*Antrodiopsis* Audet (1)

*Brunneoporus* Audet (5)

*Buglossoporus* Kotl. & Pouzar (9)

*Daedalea* Pers. (12)

*Dentiporus* Audet (1)

*Flavidoporia* Audet (3)

*Fomitopsis* P. Karst. (40)

*Fragifomes* B. K. Cui, M.L. Han & Y. C. Dai (1)

*Laricifomes* Kotl. & Pouzar (1)

*Lentoporia* Audet (1)

*Neoantrodia* Audet (13)

*Neolentiporus* Rajchenb. (2)

*Niveoporofomes* B. K. Cui, M. L. Han & Y. C. Dai (1)

*Ranadivia* Zmitr. (5)\*

*Resinoporia* Audet (11)

*Rhizoporia* Audet (1)

*Rhodofomes* Kotl. & Pouzar (5)

*Rhodofomitopsis* B.K. Cui, M. L. Han & Y. C. Dai (4)

*Rubellofomes* B. K. Cui, M.L. Han & Y. C. Dai (2)

*Subantrodia* Audet (2)

*Ungulidaedalea* B. K. Cui, M.L. Han & Y. C. Dai (1)

*Wolfiporia* Ryvarden & Gilb. (6)

***Fragiliporiaceae*** Y. C. Dai, B.K. Cui & C. L. Zhao

*Fragiliporia* Y. C. Dai, B.K. Cui & C. L. Zhao (1)

***Gelatoporiaceae*** Miettinen, Justo & Hibbett

*Cinereomyces* Jülich (2)

*Gelatoporia* Niemelä (2)

*Obba* Miettinen & Rajchenb. (2)

*Sebipora* Miettinen (1)

***Grifolaceae*** Jülich

*Aegis* Gómez-Montoya, Rajchenb. & Robledo (1)

*Grifola* Gray (5)

***Hyphodermataceae*** Jülich

*Hyphoderma* Fr. (20)

***Incrustoporiaceae* Jülich**

*Gloeoporellus* Zmitr. (1)\*  
*Incrustoporia* Domanski (5)  
*Piloporia* Niemelä (2)  
*Skeletocutis* Kotl. & Pouzar (40)  
*Tyromyces* P. Karst. (41)

***Irpicaceae* Spirin & Zmitr.**

*Byssomerulius* Parmasto (8)  
*Ceriporia* Donk (ca. 50)  
*Cytdiella* Pouzar (2)  
*Efibula* Sheng H. Wu (18)  
*Emmia* Zmitr., Spirin & Malysheva (2)  
*Flavodon* Ryvarde (3)  
*Gloeoporus* Mont. (13)  
*Hydnopolyporus* D. A. Reid (2)  
*Irpex* Fr. (10)  
*Leptoporus* Qué. (1)  
*Meruliopsis* Bondartsev (4)  
*Raduliporus* Spirin & Zmitr. (1)  
*Resiniporus* Zmitr. (2)\*  
*Trametopsis* Tomšovský (4)

***Ischnodermataceae* Jülich**

*Ischnoderma* P. Karst. (10)

***Laetiporaceae* Jülich**

*Kusaghiporia* J. Hussein, S. Tibell & Tubuhwa (1)\*  
*Laetiporus* Murrill (15)  
*Phaeolus* (Pat.) Pat. (3)

***Meripilaceae* Jülich**

*Meripilus* P. Karst. (5)  
*Pseudonadsoniella* T. O. Kondr. & S. Y. Kondr. (1)  
*Rigidoporus* Murrill (30)

***Meruliaceae* Rea**

*Aurantipileus* Ginns, D. L. Lindner & T. J. Baroni (3)  
*Aurantiporus* Murrill (6)  
*Ceriporiopsis* Domański (40)  
*Climacodon* P. Karst. (7)  
*Crustodontia* Hjortstam & Ryvarde (1)  
*Geesterania* Westphalen, Tomšovský & Rajchenb. (2)\*  
*Hermanssonia* Zmitr. (1)\*  
*Hydnophanerochaete* Sheng H. Wu & C.C. Chen (1)\*  
*Hydnophlebia* Parmasto (5)  
*Lilaceophlebia* (Parmasto) Spirin & Zmitr. (2)  
*Luteoporia* F. Wu, Jia J. Chen & S. H. He (1)  
*Merulius* Fr. (150)  
*Mycoacia* Donk (16)

*Mycoaciella* J. Erikss. & Ryvarden (5)  
*Odoria* V. Papp & Dima (1)  
*Pappia* Zmitr. (1)\*  
*Phlebia* Fr. (60)  
*Phlebiporia* Jia J. Chen, B. K. Cui & Y. C. Dai (1)  
*Physisporinus* P. Karst. (15)  
*Sarcodontia* Schulzer (1)  
*Scopuloides* (Masse) Höhn. & Litsch. (5)  
*Stereophlebia* Zmitr. (1)\*

***Panaceae*** Miettinen, Justo & Hibbett

*Cymatoderma* Jungh. (11)  
*Panus* Fr. (20)

***Phanerochaetaceae*** Jülich

*Bjerkandera* P. Karst. (5)  
*Crepatura* C.L. Zhao (1)\*  
*Donkia* Pilát (1)  
*Efibulella* Zmitr. (1)  
*Geliporus* Yuan Yuan, Jia J. Chen & S. H. He (1)  
*Hapalopilus* P. Karst. (11)  
*Hyphodermella* J. Erikss. & Ryvarden (7)  
*Odontoefibula* C. C. Chen & Sheng H. Wu (1)\*  
*Oxychaete* Miettinen (1)  
*Phaeophlebiopsis* D. Floudas & Hibbett (3)  
*Phanerina* Miettinen (1)  
*Phanerochaete* P. Karst. (80)  
*Phlebiopsis* Jülich (22)  
*Pirex* Hjortstam & Ryvarden (1)  
*Porostereum* Pilát (15)  
*Rhizochaete* Gresl., Nakasone & Rajchenb. (13)  
*Riopa* D.A. Reid (3)  
*Terana* Adans. (1)

***Podoscyphaceae*** D.A. Reid

*Abortiporus* Murrill (4)  
*Podoscypha* Pat. (36)  
*Pouzaroporia* Vampola (1)

***Polyporaceae*** Fr. ex Corda

*Abundisporus* Ryvarden (8)  
*Amauroderma* Murrill (40)  
*Atroporus* Ryvarden (3)  
*Australoporus* P.K. Buchanan & Ryvarden (1)  
*Bresadolia* Speg. (4)\*  
*Cerarioporia* F. Wu, L.W. Zhou & J. Si (1)  
*Cerioporus* Quél. (15)  
*Cinereomycetella* Zmitr. (1)\*  
*Colospora* Miettinen & Spirin (2)  
*Coriolopsis* Murrill (19)  
*Cryptoporus* (Peck) Shear (2)  
*Daedaleopsis* J. Schröt. (7)

*Datronia* Donk (9)  
*Datroniella* B.K. Cui, Hai J. Li & Y.C. Dai (6)  
*Dentocorticium* (Parmasto) M.J. Larsen & Gilb. (3)\*  
*Dextrinoporus* H.S. Yuan (1)\*  
*Dichomitus* D.A. Reid (13)  
*Donkioporia* Kotl. & Pouzar (2)  
*Donkioporiella* L.W. Zhou (1)  
*Earliella* Murrill (1)  
*Echinochaete* D.A. Reid (5)  
*Endopandanicola* Tibpromma & K.D. Hyde (1)  
*Epithele* (Pat.) Pat. (17)  
*Epithelopsis* Jülich (2)  
*Favolus* Fr. (20)  
*Flammeopellis* Y.C. Dai, B.K. Cui & C.L. Zhao (1)  
*Fomes* (Fr.) Fr. (3)  
*Fomitella* Murrill (2)  
*Globifomes* Murrill (1)  
*Foraminispora* Robledo, Costa-Rezende & Drechsler-Santos (1)  
*Funalia* Pat. (10)  
*Furtadoa* Costa-Rezende, Robledo & Drechsler-Santos (3)  
*Ganoderma* P. Karst. (180)  
*Grammothele* Berk. & M.A. Curtis (20)  
*Grammothelopsis* Jülich (7)  
*Haddowia* Steyaert (3)  
*Haploporus* Bondartsev & Singer (13)  
*Hexagonia* Fr. (17)  
*Hornodermoporus* Teixeira (2)  
*Humphreya* Steyaert (4)  
*Laccocephalum* Mc Alpine & Tepper (5)  
*Leifiporia* Y.C. Dai, F. Wu & C.L. Zhao (2)  
*Lentinus* Fr. (55)  
*Lignosus* Lloyd ex Torrend (8)  
*Lopharia* Kalchbr. & MacOwan (7)  
*Megasporia* B.K. Cui, Y.C. Dai & Hai J. Li (10)  
*Megasporoporia* Ryvarde & J.E. Wright (3)  
*Megasporoporiella* B.K. Cui, Y.C. Dai & Hai J. Li (5)  
*Melanoderma* B.K. Cui & Y.C. Dai (2)  
*Microporellus* Murrill (20)  
*Microporus* P. Beauv. (13)  
*Mollicarpus* Ginns (1)  
*Murinicarpus* B.K. Cui & Y.C. Dai (2)  
*Myriothele* Nakasone (1)  
*Navisporus* Ryvarde (8)  
*Neodatronia* B.K. Cui, Hai J. Li & Y.C. Dai (2)  
*Neodictyopus* Palacio, Robledo, Reck & Drechsler-Santos (3)  
*Neofavolus* Sotome & T. Hatt. (4)  
*Neofomitella* Y.C. Dai, Hai J. Li & Vlasák (3)  
*Pachykytospora* Kotl. & Pouzar (4)  
*Perenniporia* Murrill (100)  
*Perenniporiella* Decock & Ryvarde (5)  
*Perenniporiopsis* C.L. Zhao (1)  
*Phaeotrametes* Lloyd ex J. E. Wright (1)

*Picipes* Zmitr. & Kovalenko (16)  
*Pilatotrama* Zmitr. (1)\*  
*Podofomes* Pouzar (3)  
*Polyporopsis* Audet (1)  
*Polyporus* [P. Micheli ex Adans.] Fr. (35)  
*Porogramme* (Pat.) Pat. (4)  
*Pseudofavolus* Pat. (4)  
*Pseudomegasporoporia* X.H. Ji & F. Wu (1)  
*Pseudopiptoporus* Ryvarden (2)  
*Pyrofomes* Kotl. & Pouzar (8)  
*Rubroporus* Log.-Leite, Ryvarden & Groposo (1)  
*Sparsitubus* L.W. Hsu & J.D. Zhao (1)  
*Szczepkamyces* Zmitr. (1)\*  
*Theleporus* Fr. (9)  
*Thermophymatospora* Udagawa, Awao & Abdullah (1)  
*Tinctoporellus* Ryvarden (4)  
*Tomophagus* Murrill (2)  
*Trametes* Fr. (70)  
*Truncospora* Pilát (23)  
*Vanderbylia* D.A. Reid (7)  
*Yuchengia* B.K. Cui & K.T. Steffen (1)

#### ***Sparassidaceae*** Jülich

*Crustoderma* Parmasto (16)  
*Pycnoporellus* Murrill (2)  
*Sparassis* Fr. (7)

#### ***Steccherinaceae*** Parmasto

*Antella* Miettinen (3)  
*Antrodiella* Ryvarden & I. Johans. (50)  
*Atraporrella* Ryvarden (2)  
*Austeria* Miettinen (1)  
*Butyrea* Miettinen (2)  
*Cabalodontia* Piątek (5)  
*Caudicicola* Miettinen, M. Kulju & Kotir. (1)  
*Citripora* Miettinen (2)  
*Elaphroporia* Z.Q. Wu & C.L. Zhao (1)  
*Flabellophora* G. Cunn. (18)  
*Flaviporus* Murrill (14)  
*Frantisekia* Spirin & Zmitr. (4)  
*Junghuhnia* Corda (35)  
*Lamelloporus* Ryvarden (1)  
*Loweomyces* (Kotl. & Pouzar) Jülich (6)  
*Metuloidea* G. Cunn. (5)  
*Mycorrhaphium* Maas Geest. (6)  
*Niemelaea* Zmitr., Ezhov & Khimich (5)  
*Nigroporus* Murrill (3)  
*Steccherinum* Gray (40)  
*Trullella* Zmitr. (6)\*  
*Xanthoporus* Audet (2)

***Polyporales* genera incertae sedis**

- Aegeritopsis* Höhn. (1)  
*Amaropostia* B.K. Cui, L.L. Shen & Y.C. Dai (2)  
*Amaurohydnum* Jülich (1)  
*Amauromyces* Jülich (1)  
*Amethicium* Hjortstam (1)  
*Amyloporia* Singer (5)  
*Aquascypha* D.A. Reid (1)  
*Auriporia* Ryvarde (4)  
*Australicium* Hjortstam & Ryvarde (2)  
*Australohydnum* Jülich (2)  
*Austrolentinus* Ryvarde (1)  
*Bourdotiella* Duhem & Schultheis (1)  
*Bulbillomyces* Jülich (1)  
*Calcipostia* B.K. Cui, L.L. Shen & Y.C. Dai (1)  
*Candelabrochaete* Boidin (12)  
*Climacocystis* Kotl. & Pouzar (2)  
*Columnodontia* Jülich (1)  
*Conohypha* Jülich (2)  
*Coralloderma* D.A. Reid (2)  
*Cordochaete* Sanyal, Samita, Dhingra & Avn. P. Singh (1)  
*Cryptomphalina* R. Heim (1)  
*Cyanodontia* Hjortstam (1)  
*Cyanosporus* McGinty (1)  
*Cystidiopostia* B.K. Cui, L.L. Shen & Y.C. Dai (3)  
*Dendrophlebia* Dhingra & Priyanka (1)  
*Diacanthodes* Singer (3)  
*Diplomitoporus* Domański (25)  
*Erastia* Niemelä & Kinnunen (1)  
*Faerberia* Pouzar (1)  
*Fibroporia* Parmasto (10)  
*Fuscopostia* B.K. Cui, L.L. Shen & Y.C. Dai (4)  
*Gilbertsonia* Parmasto (1)  
*Globosomyces* Jülich (1)  
*Globuliciopsis* Hjortstam & Ryvarde (2)  
*Gyrophanopsis* Jülich (2)  
*Henningsia* Möller (5)  
*Hymenogramme* Mont. & Berk. (1)  
*Hyphodontiastra* Hjortstam (1)  
*Hypochnicium* J. Erikss. (30)  
*Inflatostereum* D.A. Reid (2)  
*Irpicochaete* Rick (1)  
*Laetifomes* T. Hatt. (1)  
*Macrohyporia* I. Johans. & Ryvarde (2)  
*Meruliophana* Duhem & Buyck (1)  
*Mycoleptodonoides* Nikol. (4)  
*Mycorrhaphoides* Hembrom, K. Das & Hallenb. (1)  
*Nigrohydnum* Ryvarde (1)  
*Phaneroites* Hjortstam & Ryvarde (1)  
*Phanerodontia* Hjortstam & Ryvarde (4)  
*Phlebiella* P.Karst. (20)  
*Piptoporellus* B.K. Cui, M.L. Han & Y.C. Dai (3)

*Pseudofibroporia* Yuan Y. Chen, B.K. Cui & Y.C. Dai (1)  
*Repetobasidiopsis* Dhingra & Avn. P. Singh (1)  
*Rhodonia* Niemelä (1)  
*Rickiopora* Westphalen, Tomšovský & Rajchenb. (1)  
*Roseofavolus* T. Hatt. (1)  
*Roseograndinia* Hjortstam & Ryvarden (1)  
*Ryvardenia* Rajchenb. (2)  
*Sarcoporia* P. Karst. (9)  
*Skeletohydnum* Jülich (1)  
*Sparassiella* Schwarzman (1)  
*Spathulina* Pat. (1)  
*Spongioides* Lázaro Ibiza (1)  
*Spongipellis* Pat. (8)  
*Stegiakantha* Maas Geest. (1)  
*Taiwanofungus* Sheng H. Wu, Z.H. Yu, Y.C. Dai & C.H. Su (2)  
*Uncobasidium* Hjortstam & Ryvarden (2)

**Russulales** Kreisel ex P. M. Kirk, P. F. Cannon & J. C. David

**Albatrellaceae** Nuss

*Albatrellopsis* Teixeira (8)  
*Albatrellus* Gray (22)  
*Byssoporia* M.J. Larsen & Zak (1)  
*Leucogaster* R. Hesse (20)  
*Leucophleps* Harkn. (3)  
*Mycolevis* A.H. Sm. (1)  
*Polyporoletus* Snell (4)  
*Scutiger* Paulet (10)

**Auriscalpiaceae** Maas Geest.

*Amylonotus* Ryvarden (6)  
*Artomyces* Jülich (17)  
*Auriscalpium* Gray (8)  
*Dentipratulum* Domański (3)  
*Lentinellus* P. Karst. (30)  
*Stalpersia* Parmasto (1)

**Bondarzewiaceae** Kotl. & Pouzar

*Amylaria* Corner (1)  
*Amylosporus* Ryvarden (12)  
*Bondarzewia* Singer (14)  
*Gloiodon* P. Karst. (3)  
*Heterobasidion* Bref. (15)  
*Laurilia* Pouzar (2)  
*Lauriliella* Nakasone & S.H. He (2)  
*Stecchericium* D.A. Reid (7)  
*Wrightoporia* Pouzar (32)

**Echinodontiaceae** Donk

*Echinodontiellum* S.H. He & Nakasone (1)  
*Echinodontium* Ellis & Everh. (4)  
*Larssoniporia* Y.C. Dai, Jia J. Chen & B.K. Cui (2)



**Hericiaceae** Donk

- Dentipellicula* Y.C. Dai & L.W. Zhou (3)
- Dentipellis* Donk (7)
- Hericium* Pers. (23)
- Laxitextum* Lentz (3)
- Pseudowrightoporia* Y.C. Dai, Jia J. Chen & B.K. Cui (10)
- Wrightoporiopsis* Y.C. Dai, Jia J. Chen & B.K. Cui (5)

**Hybogasteraceae** Jülich

- Hybogaster* Singer (1)

**Peniophoraceae** Lotsy

- Amylofungus* Sheng H. Wu (2)
- Asterostroma* Masee (19)
- Baltazaria* Leal-Dutra, Dentinger & G.W. Griff. (4)
- Dendrophora* (Parmasto) Chamuris (3)
- Dichostereum* Pilát (11)
- Duportella* Pat. (13)
- Entomocorticium* H.S. Whitney, Bandoni & Oberw. (1)
- Gloiothele* Bres. (12)
- Lachnocladium* Lév. (40)
- Licrostroma* P.A. Lemke (1)
- Metulodontia* Parmasto (1)
- Peniophora* Cooke (60)
- Sceptrulum* K.H. Larss. (1)
- Scytinostroma* Donk (35)
- Vararia* P. Karst. (50)
- Vesiculomyces* E. Hagstr. (1)

**Russulaceae** Lotsy

- Boidinia* Stalpers & Hjortstam (11)
- Gloeopeniophorella* Rick (6)
- Lactarius* Pers. (450)
- Lactifluus* (Pers.) Roussel (207)
- Multifurca* Buyck & V. Hofst. (10)
- Pseudoxenasma* K.H. Larss. & Hjortstam (1)
- Russula* Pers. (>3000)

**Stereaceae** Pilát

- Acanthobasidium* Oberw. (6)
- Acanthofungus* Sheng H. Wu, Boidin & C.Y. Chien (6)
- Acanthophysellum* Parmasto (14)
- Acanthophysium* (Pilát) G. Cunn. (20)
- Aleurobotrys* Boidin (10)
- Aleurodiscus* Rabenh. ex J. Schröt. (27)
- Aleuromyces* Boidin & Gilles (1)
- Amylohyphus* Ryvarden (1)
- Amylosporomyces* S. S. Rattan (2)
- Confertextum* Priyanka & Dhingra (2)
- Conferticum* Hallenb. (4)
- Dextrinocystidium* Sheng H. Wu (2)
- Gloeocystidiellum* Donk (8)

*Gloeocystidiopsis* Jülich (1)  
*Gloeomyces* Sheng H. Wu (3)  
*Gloeosoma* Bres. (1)  
*Matula* Masee (2)  
*Megalocystidium* Jülich (7)  
*Neoaleurodiscus* Sheng H. Wu (2)  
*Scotoderma* Jülich (1)  
*Stereum* Hill ex Pers. (40)  
*Xylobolus* P. Karst. (10)

***Xenasmataceae*** Oberw.

*Xenasma* Donk (16)  
*Xenasmatella* Oberw. (14)  
*Xenosperma* Oberw. (4)

***Russulales*** genera *incertae sedis*

*Aleurocystidiellum* P.A. Lemke (3)  
*Dentipellopsis* Y.C. Dai & L.W. Zhou (1)  
*Dichantharellus* Corner (2)  
*Dichopleuropus* D. A. Reid (1)  
*Gleoasterostroma* Rick (1)  
*Gloeodontia* Boidin (8)  
*Gloehypochnicium* (Parmasto) Hjortstam (2)  
*Haloaleurodiscus* N. Maek., Suhara & K. Kinjo (1)  
*Laeticutis* Audet (1)  
*Neoalbatrellus* Audet (4)  
*Perplexostereum* Ryvarden & S. Tutka (1)  
*Polypus* Audet (1)  
*Scopulodontia* Hjortstam (3)  
*Scytinostromella* Parmasto (6)  
*Xeroceps* Audet (2)

***Sebacinales*** M. Weiss, Selosse, Rexer, A. Urb. & Oberw.

***Sebacinaceae*** K. Wells & Oberw.

*Chaetospermum* Sacc. (4)  
*Ditangium* P. Karst. (3)  
*Efibulobasidium* K. Wells (1)  
*Globulisebacina* Oberw., Garnica & K. Riess (2)  
*Helvellosebacina* Oberw., Garnica & K. Riess (2)  
*Paulisebacina* Oberw., Garnica & K. Riess (1)  
*Sebacina* Tul. & C. Tul. (17)  
*Tremelloscypha* D.A. Reid (4)

***Serendipitaceae*** M. Weiss, Waller, A. Zuccaro & Selosse

*Serendipita* P. Roberts (11)

***Stereopsidales*** Sjökvist, E. Larss., B.E. Pfeil & K.H. Larss.

***Stereopsidaceae*** Sjökvist, E. Larss., B.E. Pfeil & K.H. Larss.

*Stereopsis* D.A. Reid (15)

***Thelephorales*** Corner ex Oberw.

***Bankeraceae*** Donk

*Bankera* Coker & Beers ex Pouzar (8)  
*Boletopsis* Fayod (10)  
*Corneroporus* T. Hatt. (1)  
*Hydnellum* P. Karst. (39)  
*Sarcodon* Quéf. ex P. Karst. (49)

***Thelephoraceae*** Chevall.

*Amaurodon* J. Schröt (10)  
*Lenzitopsis* Malençon & Bertault (2)  
*Phellodon* P. Karst. (18)  
*Polyozellus* Murrill (1)  
*Pseudotomentella* Svrček (17)  
*Skepperia* Berk. (5)  
*Thelephora* Ehrh. ex Willd. (50)  
*Tomentella* Pers. ex Pat. (100)  
*Tomentellopsis* Hjortstam (8)

***Thelephorales*** genus *incertae sedis*

*Thelephorella* P. Karst. (1)

***Trechisporales*** K.H. Larss.

***Hydnodontaceae*** Jülich

*Brevicellicium* K. H. Larss. & Hjortstam (13)  
*Dextrinocystis* Gilb. & M. Blackw. (2)  
*Dextrinodontia* Hjortstam & Ryvarde (1)  
*Hydnodon* Banker (1)  
*Litschauerella* Oberw. (3)  
*Luellia* K.H. Larss. & Hjortstam (3)  
*Porpomyces* Jülich (1)  
*Scytinopogon* Singer (5)  
*Sistotremastrum* J. Erikss. (6)  
*Sphaerobasidium* Oberw. (3)  
*Subulicystidium* Parmasto (20)  
*Trechispora* P. Karst. (48)  
*Tubulicium* Oberw. (7)

***Tremellodendropsidales*** Vizzini

***Tremellodendropsidaceae*** Jülich

*Tremellodendropsis* (Corner) D.A. Crawford (8)

***Agaricomycetes*** genera *incertae sedis*

*Akenomyces* G. Arnaud ex D. Hornby (1)  
*Aldridgea* Masee (1)  
*Arthrodochium* R.F. Castañeda & W.B. Kendr. (1)  
*Arualis* Katz (1)  
*Blasiphalia* Redhead (1)  
*Bridgeoporus* T.J. Volk, Burds. & Ammirati (2)  
*Cenangiomycetes* Dyko & B. Sutton (1)  
*Ceraceopsis* Hjortstam & Ryvarde (1)  
*Cilicia* Fr. (2)  
*Corticomyces* A.I. Romero & S. E. López (1)  
*Cruciger* R. Kirschner & Oberw. (1)

*Dendrosporomyces* Nawawi, J. Webster & R.A. Davey (1)  
*Ellula* Nag Raj (1)  
*Fibulocoela* Nag Raj (1)  
*Fibulotaeniella* Marvanová & Bärli. (1)  
*Geotrichopsis* Tzean & Estey (1)  
*Gloeosynnema* Seifert & G. Okada (2)  
*Glomerulomyces* A.I. Romero & S.E. López (1)  
*Glutinoagger* Sivan. & Watling (1)  
*Hallenbergia* Dhingra & Priyanka (1)  
*Heteroacanthella* Oberw. (3)  
*Intextomyces* J. Erikss. & Ryvarden (4)  
*Korupella* Hjortstam & P. Roberts (1)  
*Loreleia* Redhead, Moncalvo, Vilgalys & Lutzoni (3)  
*Minostroscyta* Hjortstam & Ryvarden (1)  
*Myliopsis* Pat. (1)  
*Myriococcum* Fr. (1)  
*Odonticium* Parmasto (7)  
*Pagidospora* Drechsler (1)  
*Phlyctibasidium* Jülich (1)  
*Purpureocorticium* S.H. Wu (1)  
*Pycnovellomyces* R.F. Castañeda (1)  
*Riessia* Fresen. (5)  
*Riessiella* Jülich (2)  
*Taiwanoporia* T.T. Chang & W.N. Chou (1)  
*Titaeella* G. Arnaud ex K. Ando & Tubaki (1)  
*Trechinothus* E.C. Martini & Trichiès (1)  
*Trimitiella* Dhingra (1)  
*Tubulicrinopsis* Hjortstam & Kotir. (4)  
*Xerotus* Fr. (4)

***Bartheletiomycetes*** Thines

***Bartheletiales*** Thines

***Bartheletiaceae*** R. Bauer, Scheuer, M. Lutz & Grube

*Bartheletia* G. Arnaud ex Scheuer, R. Bauer, M. Lutz, Stabenth., Melnik & Grube (1)

***Dacrymycetes*** Doweld

***Dacrymycetales*** Henn.

***Cerinomycetaceae*** Jülich

*Cerinomyces* G. W. Martin (13)

***Dacrymycetaceae*** J. Schröt.

*Calocera* (Fr.) Fr. (18)

*Cerinosterus* R.T. Moore (1)

*Dacrymyces* Nees (50)

*Dacryonaema* Nannf. (1)

*Dacryopinax* G.W. Martin (24)

*Dacryoscyphus* R. Kirschner & Zhu L. Yang (1)

*Ditiola* Fr. (10)

*Femsjonina* Fr. (7)

*Guepiniopsis* Pat. (8)

*Heterotextus* Lloyd (6)

**Unilacrymales** Shirouzu, Tokum. & Oberw.  
**Unilacrymaceae** Shirouzu, Tokum. & Oberw.  
*Unilacryma* Shirouzu, Tokum. & Oberw. (1)

**Tremellomycetes** Doweld  
**Cystofilobasidiales** Fell, Roelijmans & Boekhout  
**Cystofilobasidiaceae** K. Wells & Bandoni  
*Cystofilobasidium* Oberw. & Bandoni (8)

**Mrakiaceae** X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout  
*Itersonilia* Derx (3)  
*Krasilnikovozyma* X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (3)  
*Mrakia* Y. Yamada & Komag. (12)  
*Phaffia* M.W. Mill., Yoney. & Soneda (1)  
*Tausonia* Babeva (3)  
*Udeniomyces* Nakase & Takem. (4)  
*Vustinia* Kachalkin, Turchetti & Yurkov (1)

**Filobasidiales** Jülich  
**Filobasidiaceae** L.S. Olive  
*Filobasidium* L.S. Olive (9)  
*Goffeauzyma* X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (6)  
*Heterocephalacria* Berthier (8)  
*Naganishia* S. Goto (8)  
*Syzygospora* G.W. Martin (2)

**Piskurozymaceae** X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout  
*Piskurozyma* X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (12)  
*Solicoccozyma* X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (7)

**Holtermanniales** Libkind, Wuczk., Turchetti & Boekhout  
**Holtermanniaceae** Redhead  
*Holtermannia* Sacc. & Traverso (8)  
*Holtermanniella* Libkind, Wuczk., Turchetti & Boekhout (5)

**Tremellales** Fr.  
**Bulleraceae** X. Zh. Liu, F.Y. Bai, M. Groenew. & Boekhout  
*Bullera* Derx (4)  
*Fonsecazyma* X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (3)  
*Genolevuria* X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (4)  
*Pseudotremella* X.Z. Liu, F.Y. Bai, A.M. Yurkov, M. Groenew. & Boekhout (4)

**Bulleribasidiaceae** X. Z. Liu, F.Y. Bai, M. Groenew. & Boekhout  
*Bulleribasidium* J.P. Samp., M. Weiss & R. Bauer (11)  
*Derxomyces* F.Y. Bai & Q.M. Wang (24)  
*Dioszegia* Zsolt (18)  
*Hannaella* F.Y. Bai & Q.M. Wang (11)  
*Nielozyma* X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (2)  
*Vishniacozyma* X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (11)

**Carcinomycetaceae** Oberw. & Bandoni  
*Carcinomyces* Oberw. & Bandoni (3)

**Cryptococcaceae** Kütz. ex Castell. & Chalm.

*Cryptococcus* Vuill. (12)

*Kwoniella* Statzell & Fell (14)

**Cuniculitremaeae** J.P. Samp., R. Kirschner & M. Weiss

*Fellomyces* Y. Yamada & I. Banno (4)

*Kockovaella* Nakase, I. Banno & Y. Yamada (19)

*Sterigmatosporidium* G. Kraep. & U. Schulze (1)

**Naemateliaceae** X. Z. Liu, F. Y. Bai, M. Groenew. & Boekhout

*Dimennazyma* X. Z. Liu, F. Y. Bai, M. Groenew. & Boekhout (1)

*Naematelia* Fr. (4)

**Phaeotremellaceae** A.M. Yurkov & Boekhout

*Gelidatrema* A.M. Yurkov, X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (1)

*Phaeotremella* Rea (11)

**Phragmoxenidiaceae** Oberw. & R. Bauer

*Phragmoxenidium* Oberw. (1)

**Rhynchogastremaceae** Oberw. & B. Metzler

*Papiliotrema* J.P. Samp., M. Weiss & R. Bauer (30)

*Rhynchogastrema* B. Metzler & Oberw. (9)

*Tetragoniomyces* Oberw. & Bandoni (1)

**Sirobasidiaceae** Lindau

*Fibulobasidium* Bandoni (3)

**Tremellaceae** Fr.

*Hormomyces* Bonord. (6)

*Mycocryptococcus* Pollacci & Nann. (1)

*Tremella* Pers. (>500)

**Trimorphomycetaceae** X. Z. Liu, F.Y. Bai, M. Groenew. & Boekhout

*Carlosrosaea* A.M. Yurkov, X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (3)

*Saitozyma* X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (4)

*Sugitazyma* A.M. Yurkov, X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (1)

*Trimorphomyces* Bandoni & Oberw. (2)

**Tremellales** genera *incertae sedis*

*Biatoropsis* Räsänen (4)

*Dictyotremella* Kobayasi (1)

*Neotremella* Lowy (1)

*Sigmogloea* Bandoni & J.C. Krug (1)

*Sirobasidium* Lagerh. & Pat. (8)

*Sirotrema* Bandoni (3)

*Tremellina* Bandoni (1)

*Xenolachne* D.P. Rogers (2)

**Trichosporonales** Boekhout & Fell

**Tetragoniomycetaceae** Oberw. & Bandoni

*Bandonia* A.M. Yurkov, X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (1)

*Cryptotrichosporon* Okoli & Boekhout (5)

*Takashimella* Q.M. Wang (4)

***Trichosporonaceae*** Nann.

*Apiotrichum* Stautz (21)

*Cutaneotrichosporon* X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (15)

*Effuseotrichosporon* A.M. Yurkov, X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (1)

*Haglerozyma* X.Z. Liu, F.Y. Bai, M. Groenew. & Boekhout (1)

*Pascua* Takashima, Manabe, Nishimura, Sriswasdi, Ohkuma, Iwasaki & Sugita (1)

*Prillingera* Takashima, Manabe, Nishimura, Sriswasdi, Ohkuma, Iwasaki & Sugita (1)

*Trichosporon* Behrend (12)

*Vanrija* R. T. Moore (9)

***Tremellomycetes*** genera *incertae sedis*

*Heteromycophaga* P. Roberts (2)

*Phyllopta* (Fr.) Fr. (1)

*Trichosporonoides* Haskins & J.F.T. Spencer (6)

***Pucciniomycotina*** R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.

***Agaricostilbomycetes*** R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.

***Agaricostilbales*** Oberw. & R. Bauer

***Agaricostilbaceae*** Oberw. & R. Bauer

*Agaricostilbum* J.E. Wright (4)

*Pseudobensingtonia* F.Y. Bai, Q.M. Wang, M. Groenewald & Boekhout (2)

*Sterigmatomyces* Fell (5)

***Chionosphaeraceae*** Oberw. & Bandoni

*Ballistosporomyces* Nakase, G. Okada & Sugiy. (4)

*Chionosphaera* D.E. Cox (6)

*Cystobasidiopsis* R. Bauer, B. Metzler, Begerow & Oberw. (3)

*Kurtzmanomyces* Y. Yamada, Itoh, H. Kawas., I. Banno & Nakase (4)

*Stilbum* Tode (10)

***Kondoaceae*** R. Bauer, Begerow, J. P. Samp., M. Weiss & Oberw.

*Bensingtonia* Ingold (5)

*Kondoa* Y. Yamada, Nakagawa & I. Banno (10)

***Ruineniaceae*** Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout

*Ruinenia* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (5)

***Agaricostilbales*** genera *incertae sedis*

*Jianyunia* Q. M. Wang, F. Y. Bai, M. Groenew. & Boekhout (1)

*Mycogloea* L. S. Olive (7)

***Atractiellomycetes*** R. Bauer, Begerow, J. P. Samp., M. Weiss & Oberw.

***Atractiellales*** Oberw. & Bandoni

***Atractogloeaceae*** Oberw. & R. Bauer

*Atractogloea* Oberw. & Bandoni (1)

***Hoehnelomycetaceae*** Jülich

*Basidiopycnis* Oberw., R. Kirschner, R. Bauer, Begerow & Arenal (1)

*Proceropycnis* M. Villarreal, Arenal, V. Rubio, Begerow, R. Bauer, R. Kirschner & Oberw.  
(2)

**Phleogenaceae** Gäum.

*Atractidochium* Oono, Urbina & Aime (1)  
*Atractiella* Sacc. (7)  
*Bourdotigloea* Aime (9)  
*Helicogloea* Pat. (25)  
*Hobsonia* Berk. ex Masee (2)  
*Phleogena* Link (1)  
*Saccosoma* Spirin (9)

**Classiculomycetes** R. Bauer, Begerow, J. P. Samp., M. Weiss & Oberw.

**Classiculales** R. Bauer, Begerow, Oberw. & Marvanová

**Classiculaceae** R. Bauer, Begerow, Oberw. & Marvanová

*Classicula* R. Bauer, Begerow, Oberw. & Marvanová (2)  
*Jaculispora* H. J. Huds. & Ingold (1)

**Cryptomycocolacomycetes** R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.

**Cryptomycocolacales** Oberw. & R. Bauer

**Cryptomycocolacaceae** Oberw. & R. Bauer

*Colacosiphon* R. Kirschner, R. Bauer & Oberw. (1)  
*Cryptomycocolax* Oberw. & R. Bauer (1)

**Cystobasidiomycetes** R. Bauer, Begerow, J. P. Samp., M. Weiss & Oberw.

**Buckleyzymales** R.L. Zhao & K.D. Hyde

**Buckleyzymaceae** Q. M. Wang, F.Y. Bai, M. Groenew. & Boekhout

*Buckleyzyma* Q. M. Wang, F.Y. Bai, M. Groenew. & Boekhout (5)

**Cystobasidiales** R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.

**Cystobasidiaceae** Gäum.

*Cystobasidium* (Lagerh.) Neuhoff (20)  
*Halobasidium* Z. Guo, Y.R. Wang, Q.C. Hou, W.C. Li, H. J. Zhao, Z. H. Sun & Z.D. Zhang  
(1)  
*Occultifur* Oberw. (?9)

**Erythrobasidiales** R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.

**Erythrobasidiaceae** Denchev

*Bannoa* Hamam. (4)  
*Erythrobasidium* Hamam, Sugiy. & Komag. (3)

**Erythrobasidiales** genera *incertae sedis*

*Cyphobasidium* Millanes, Diederich & Wedin (2)  
*Cyrenella* Goch. (1)  
*Hasegawazyma* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)

**Naohideales** R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.

**Naohideaceae** Denchev

*Naohidea* Oberw. (1)

**Sakaguchiales** R.L. Zhao & K. D. Hyde

**Sakaguchiaceae** Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout



*Sakaguchia* Y. Yamada, K. Maeda & Mikata (5)

***Cystobasidiomycetes*** families *incertae sedis*

***Microsporomycetaceae*** Q.M. Wang, F. Y. Bai, M. Groenew. & Boekhout

*Microsporomyces* Q.M. Wang, F. Y. Bai, M. Groenew. & Boekhout (4)

***Symmetrosporaceae*** Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout

*Symmetrospora* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (10)

***Cystobasidiomycetes*** genus *incertae sedis*

*Queiroziella* C.R. Félix, J.D.P. Bezerra, R.P. Neves & Landell (1)

***Microbotryomycetes*** R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.

***Heterogastridiales*** Oberw. & R. Bauer

***Heterogastridiaceae*** Oberw. & R. Bauer

*Hyalopycnis* Höhn. (1)

*Krieglsteinera* Pouzar (1)

*Pycnopulvinus* Toome & Aime (1)

***Kriegeriales*** Toome & Aime

***Camptobasidiaceae*** R.T. Moore

*Camptobasidium* Marvanová & Suberkr. (1)

*Glaciozyma* Turchetti, Connell, Thomas-Hall & Boekhout (4)

***Kriegeriaceae*** Toome & Aime

*Kriegeria* Bres. (1)

*Meredithblackwellia* Toome & Aime (1)

*Phenoliferia* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (4)

*Yamadamyces* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)

***Leucosporidiales*** Sampaio, M. Weiss & Bauer

***Leucosporidiaceae*** Sampaio, M. Weiss & Bauer

*Leucosporidium* Fell, Statzell, I.L. Hunter & Phaff (11)

***Microbotryales*** R. Bauer & Oberw.

***Microbotryaceae*** R.T. Moore

*Bauerago* Vánky (9)

*Microbotryum* Lév. (100)

*Sphacelotheca* de Bary (50)

*Zundeliomyces* Vánky (1)

***Ustilentylomataceae*** R. Bauer & Oberw.

*Aurantiosporium* M. Piepenbr., Vánky & Oberw. (4)

*Fulvisporium* Vánky (1)

*Microbotryozyma* S.O. Suh, D.A. Maslov, Molestina & J.J. Zhou (1)

*Ustilentyloma* Savile (4)

***Sporidiobolales*** Doweld

***Sporidiobolaceae*** R.T. Moore

*Rhodosporeidiobolus* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (11)

*Rhodotorula* F.C. Harrison (15)

*Sporobolomyces* Kluyver & C.B. Niel (10)

***Microbotryomycetes*** families *incertae sedis*

***Chrysozymaceae*** Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout

- Bannozyma* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (2)
- Chrysozyma* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (2)
- Fellozyma* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)
- Hamamotoa* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (4)

***Colacogloeaceae*** Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout

- Colacogloea* Oberw. & Bandoni (13)

***Microbotryomycetes*** genera *incertae sedis*

- Atractocolax* R. Kirschner, R. Bauer & Oberw. (1)
- Curvibasidium* Samp. & Golubev (3)
- Heitmania* X.Z. Liu, F.Y. Bai, M. Groenew. & T. Boekhout (3)
- Libkindia* Mašínová, A. Pontes, J.P. Samp. & Baldrian (1)
- Oberwinklerozyma* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (3)
- Pseudohyphozyma* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (3)
- Pseudoleucosporidium* V. de Garcia, M.A. Coelho, T. Maia, L.H. Rosa, A.B.M. Vaz, C.A. Rosa, J.P. Samp., P. Gonç., M.R. Van Broock & Libkind (1)
- Sampaiozyma* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (2)
- Slooffia* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (4)
- Spencerozyma* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)
- Trigonosporomyces* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)
- Udeniozyma* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)
- Vonarxula* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (1)
- Yunzhangia* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (2)
- Yurkovia* Mašínová, A. Pontes, J.P. Samp. & Baldrian (1)

***Mixiomycetes*** R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.

***Mixiales*** R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.

***Mixiaceae*** C.L. Kramer

- Mixia* C.L. Kramer (1)

***Pucciniomycetes*** R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.

***Helicobasidiales*** R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.

***Helicobasidiaceae*** P.M. Kirk

- Helicobasidium* Pat. (6)
- Tuberculina* Tode ex Sacc. (26)

***Pachnocybales*** R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.

***Pachnocybaceae*** Oberw. & R. Bauer

- Pachnocybe* Berk. (1)

***Platyglloeales*** R.T. Moore

***Eocronartiaceae*** Jülich

- Eocronartium* G.F. Atk. (1)
- Herpobasidium* Lind (6)
- Jola* Möller (1)
- Platycarpa* Couch (2)
- Ptechetelium* Oberw. & Bandoni (1)

***Platyglloeaceae*** Racib.

- Glomerogloea* Doweld (1)
- Glomopsis* D.M. Hend. (2)
- Insolibasidium* Oberw. & Bandoni (1)
- Platyglloea* J. Schröt. (16)

***Pucciniales*** Clem. & Shear

***Chaconiaceae*** Cummins & Y. Hirats.

- Achrotelium* Syd. (5)
- Aplopsora* Mains (6)
- Botryorhiza* Whetzel & Olive (1)
- Ceraceopsisora* Kakish., T. Sato & S. Sato (1)
- Chaconia* Juel (12)
- Goplana* Racib. (13)
- Maravalia* Arthur (41)
- Olivea* Arthur (8)
- Telomapea* G.F. Laundon (1)

***Coleosporiaceae*** Dietel

- Ceropsora* B.K. Bakshi & Suj. Singh (1)
- Chrysomyxa* Unger (38)
- Coleosporium* Lév. (125)
- Diaphanopellis* P.E. Crane (2)
- Gallowaya* Arthur (3)

***Cronartiaceae*** Dietel

- Cronartium* Fr. (34)
- Endocronartium* Y. Hirats. (2)
- Peridermium* (Link) J.C. Schmidt & Kunze (50)

***Melampsoraceae*** Dietel

- Melampsora* Castagne (100)

***Mikronegeriaceae*** Cummins & Y. Hirats.

- Blastospora* Dietel (5)
- Chrysocelis* Lagerh. & Dietel (5)
- Mikronegeria* Dietel (3)

***Phakopsoraceae*** Cummins & Hirats. f.

- Aeciure* Buriticá & J.F. Hennen (1)
- Arthuria* H.S. Jacks. (6)
- Cerotelium* Arthur (27)
- Crossopsora* Syd. & P. Syd. (16)
- Dasturella* Mundk. & Khesw. (3)
- Kweilingia* Teng (4)
- Macabuna* Buriticá & J.F. Hennen (7)
- Monosporidium* Barclay (3)
- Newinia* Thaug (3)
- Nothoravenelia* Dietel (3)
- Phakopsora* Dietel (116)
- Phragmidiella* Henn. (8)
- Pucciniostele* Tranzschel & K.L. Kom. (4)

*Scalarispora* Buriticá & J.F. Hennen (1)

*Uredopeltis* Henn. (7)

***Phragmidiaceae*** Corda

*Arthuriomyces* Cummins & Y. Hirats. (3)

*Campanulospora* Salazar-Yepes, Pardo-Card. & Buriticá (1)

*Gerwasia* Racib. (19)

*Gymnoconia* Lagerh. (4)

*Hamaspora* Körn. (15)

*Joerstadia* Gjaerum & Cummins (4)

*Kuehneola* Magnus (22)

*Morispora* Salazar-Yepes, Pardo-Card. & Buriticá (1)

*Phragmidium* Link (100)

*Physonema* Lév. (1)

*Scutelliformis* Salazar-Yepes, Pardo-Card. & Buriticá (1)

*Trachyspora* Fuckel (5)

*Xenodoichus* Schltld. (2)

***Pileolariaceae*** Cummins & Y. Hirats.

*Atelocauda* Arthur & Cummins (3)

*Pileolaria* Castagne (16)

*Skierka* Racib. (13)

*Uromycladium* McAlpine (11)

***Pucciniaceae*** Chevall.

*Allodus* Arthur (1)

*Chrysella* Syd. (1)

*Chrysocyclus* Syd. (3)

*Chrysopsora* Lagerh. (1)

*Cleptomyces* Arthur (1)

*Coleopucciniella* Hara ex Hirats. (2)

*Corbulopsora* Cummins (3)

*Cumminsiella* Arthur (8)

*Cystopsora* E.J. Butler (2)

*Endophyllum* Lév. (43)

*Gymnosporangium* R. Hedw. ex DC. (64)

*Kernella* Thirum. (1)

*Miyagia* Miyabe ex Syd. & P. Syd. (3)

*Polioma* Arthur (5)

*Puccinia* Pers. (3300)

*Ramakrishnania* Ramachar & Bhagyan. (1)

*Roestelia* Rebent. (15)

*Stereostratum* Magnus (1)

*Uromyces* (Link) Unger (1500)

*Xenosteles* Syd. & P. Syd. (4)

*Zaghouania* Pat. (2)

***Pucciniastraceae*** Gäum. ex Leppik

*Hyalopsora* Magnus (21)

*Melampsorella* J. Schröt. (2)

*Melampsoridium* Kleb. (11)

*Milesia* F.B. White 1878 (20)

*Milesina* Magnus (65)  
*Naohidemyces* S. Sato, Katsuya & Y. Hirats. (2)  
*Peridiopsis* Kamat & Sathe (2)  
*Pucciniastrum* G.H. Otth (50)  
*Thekopsora* Magnus (7)  
*Uredinopsis* Magnus (30)

***Puccinosiraceae*** Cummins & Y. Hirats.

*Alveolaria* Lagerh. (2)  
*Baeodromus* Arthur (6)  
*Ceratocoma* Buriticá & J.F. Hennen (1)  
*Chardonella* F. Kern (4)  
*Cionothrix* Arthur (5)  
*Didymopsora* Dietel (6)  
*Dietelia* Henn. (13)  
*Gambleola* Masee (1)  
*Puccinosira* Lagerh. (17)  
*Trichopsora* Lagerh. (1)

***Raveneliaceae*** Leppik

*Allotelium* Syd. (1)  
*Anthomyces* Dietel (1)  
*Anthomycetella* Syd. & P. Syd. (1)  
*Apra* J.F. Hennen & F.O. Freire (1)  
*Bibulocystis* J. Walker, Beilharz, Pascoe & Priest (3)  
*Cumminsina* Petr. (1)  
*Cystomyces* Syd. (1)  
*Diabole* Arthur (1)  
*Diabolidium* Berndt (1)  
*Dicheirinia* Arthur (14)  
*Diorchidiella* J.C. Lindq. (2)  
*Diorchidium* Kalchbr. (20)  
*Endoraecium* Hodges & D.E. Gardner (22)  
*Esalque* J.F. Hennen, Figueiredo & A.A. Carvalho (1)  
*Hapalophragmium* Syd. & P. Syd. (18)  
*Kernkampella* Rajendren (8)  
*Lipocystis* Cummins (1)  
*Nyssopsora* Arthur (11)  
*Ravenelia* Berk. (250)  
*Sphenospora* Dietel (6)  
*Spumula* Mains (7)  
*Triphragmiopsis* Naumov (3)  
*Triphragmium* Link (7)  
*Ypsilospora* Cummins (3)

***Sphaerophragmiaceae*** Cummins & Y. Hirats.

*Austropuccinia* Beenken (1)  
*Sphaerophragmium* Magnus (24)

***Uncolaceae*** Buriticá

*Calidion* Syd. & P. Syd. (4)  
*Uncol* Buriticá & P.A. Rodr. (1)

***Uropyxidaceae*** (P. Syd. & Syd.) Cummins & Y. Hirats.

- Canasta* A.A. Carvalho & J.F. Hennen (3)
- Dasyscypha* Berk. & M.A. Curtis (13)
- Didymopsorella* Thirum. (2)
- Dipyxis* Cummins & J.W. Baxter (2)
- Kimuromyces* Dianese, L.T.P. Santos, R.B. Medeiros & Furlan. (1)
- Leucotelium* Tranzschel (3)
- Macruropyxis* Azbukina (2)
- Mimema* H.S. Jacks. (1)
- Ochropsora* Dietel (3)
- Phragmopyxis* Dietel (4)
- Poliomopsis* A.W. Ramaley (1)
- Porotenus* Viégas (7)
- Prospodium* Arthur (84)
- Sorataea* Syd. (8)
- Tranzschelia* Arthur (19)
- Uropyxis* J. Schröt. (15)

***Pucciniales*** genera *incertae sedis*

- Aecidiconium* Vuill. (1)
- Aecidiolum* Unger (12)
- Aecidium* Pers. (ca. 800)
- Caeoma* Link (ca. 50)
- Caetea* Salazar-Yepes & A.A. Carvalho (1)
- Cerradoa* J.F. Hennen & Y. Ono (1)
- Coleopuccinia* Pat. (1)
- Desmella* Syd. & P. Syd. (4)
- Desmellopsis* J.M. Yen (1)
- Desmosorus* Ritschel, Oberw. & Berndt (1)
- Edythea* H.S. Jacks. (5)
- Elateraecium* Thirum., F. Kern & B.V. Patil (3)
- Flaminia* Sacc. & P. Syd. (1)
- Hemileia* Berk. & Broome (55)
- Hennenia* Buriticá (1)
- Intrapes* J.F. Hennen & Figueiredo (1)
- Masseëlla* Dietel (6)
- Mehtamyces* Mundk. & Thirum. (1)
- Phragmotelium* Syd. (10)
- Puccorchidium* Beenken (2)
- Schroeteriaster* Magnus (4)
- Sphenorchidium* Beenken (2)
- Uraecium* Arthur (12)
- Uredo* Pers. (600)

***Septobasidiales*** Couch ex Donk

***Septobasidiaceae*** Racib.

- Aphelariopsis* Jülich (2)
- Auriculosocypha* D.A. Reid & Manim. (1)
- Coccidiodyctyon* Oberw. (1)
- Johncouchia* S. Hughes & Cavalc. (1)
- Septobasidium* Pat. (200)
- Uredinella* Couch (2)

***Spiculogloeomycetes*** Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout

***Spiculogloeales*** R. Bauer, Begerow, J.P. Samp., M. Weiss & Oberw.

***Spiculogloeaceae*** Denchev

*Phyllozyma* Q.M. Wang, F.Y. Bai, M. Groenew. & Boekhout (7)

*Spiculogloea* P. Roberts (5)

***Tritirachiomycetes*** Aime & Schell

***Tritirachiales*** Aime & Schell

***Tritirachiaceae*** Aime & Schell

*Tritirachium* Limber (4)

*Paratritirachium* Beguin, Pyck & Detandt (2)

***Pucciniomycotina*** genera *incertae sedis*

*Kryptastrina* Oberw (1)

*Paraphelaria* Corner (2)

*Zygogloea* P. Roberts (1)

***Ustilaginomycotina*** Doweld

***Exobasidiomycetes*** Begerow, M. Stoll & R. Bauer

***Ceraceosorales*** Begerow, M. Stoll & R. Bauer

***Ceraceosoraceae*** Denchev & R.T. Moore

*Ceraceosorus* B.K. Bakshi (3)

***Doassansiales*** R. Bauer & Oberw.

***Doassansiaceae*** R.T. Moore ex P.M. Kirk, P.F. Cannon & J.C. David

*Burrillia* Setch. (4)

*Doassansia* Cornu (12)

*Doassinga* Vánky, R. Bauer & Begerow (1)

*Entylomaster* Vánky & R.G. Shivas (2)

*Heterodoassansia* Vánky (8)

*Nannfeldtiomyces* Vánky (2)

*Narasimhania* Thirum. & Pavgi (1)

*Pseudodermatosorus* Vánky (2)

*Pseudodoassansia* (Setch.) Vánky (2)

*Pseudotracya* Vánky (1)

*Tracya* Syd. & P. Syd. (2)

***Melaniellaceae*** R. Bauer, Vánky, Begerow & Oberw.

*Melaniella* R. Bauer, Vánky, Begerow & Oberw. (2)

***Rhamphosporaceae*** R. Bauer & Oberw.

*Rhamphospora* D.D. Cunn. (2)

***Entylomatales*** R. Bauer & Oberw.

***Entylomataceae*** R. Bauer & Oberw.

*Entyloma* de Bary (163)

*Tilletiopsis* Derx (3)

***Exobasidiales*** Henn.

***Brachybasidiaceae*** Gäum.

*Brachybasidium* Gäum. (1)

*Dicellomyces* L.S. Olive (4)

*Kordyana* Racib. (8)  
*Meira* Boekhout, Scorzetti, Gerson & Sztejn. (4)  
*Proliferobasidium* J.L. Cunn. (1)

***Cryptobasidiaceae*** Malençon ex Donk

*Acaromyces* Boekhout, Scorzetti, Gerson & Sztejn. (1)  
*Botryoconis* Syd. & P.Syd. (2)  
*Clinoconidium* Pat. (6)  
*Coniodictyum* Har. & Pat. (1)  
*Drepanoconis* J. Schröt. & Henn. (3)  
*Phacellula* Syd. (1)

***Exobasidiaceae*** J. Schröt.

*Arcticomyces* Savile (1)  
*Austrobasidium* Palfner (1)  
*Exobasidium* Woronin (51)  
*Muribasidiospora* Kamat & Rajendren (3)

***Graphiolaceae*** Clem. & Shear

*Graphiola* Poit. (12)  
*Stylina* Syd. & P. Syd. (1)

***Laurobasidiaceae*** Pinruan, Sommai, Suetrong, Somrith. & E.B.G. Jones

*Laurobasidium* Jülich (2)

***Georgefischeriales*** R. Bauer, Begerow & Oberw.

***Eballistraceae*** R. Bauer, Begerow, A. Nagler & Oberw.

*Eballistra* R. Bauer, Begerow, A. Nagler & Oberw. (4)

***Georgefischeriaceae*** R. Bauer, Begerow & Oberw.

*Georgefischeria* Thirum. & Naras. (4)  
*Jamesdicksonia* Thirum., Pavgi & Payak (20)

***Gjaerumiaceae*** R. Bauer, M. Lutz & Oberw.

*Gjaerumia* R. Bauer, M. Lutz & Oberw. (3)

***Tilletiariaceae*** R.T. Moore

*Phragmotenium* R. Bauer, Begerow, A. Nagler & Oberw. (5)  
*Tilletiaria* Bandoni & B.N. Johri (1)  
*Tolyposporella* G.F. Atk. (6)

***Golubeviales*** Q.M. Wang, Begerow, F.Y. Bai & Boekhout

***Golubeviaceae*** Q.M. Wang, F.Y. Bai, Begerow & Boekhout

*Golubevia* Q.M. Wang, F.Y. Bai, Begerow & Boekhout (1)

***Microstromatales*** R. Bauer & Oberw.

***Microstromataceae*** Jülich

*Microstroma* Niessl (16)

***Quambalariaceae*** Z.W. de Beer, Begerow & R. Bauer

*Quambalaria* J.A. Simpson (7)



***Volvocisporiaceae*** Begerow, R. Bauer & Oberw.

*Volvocisporium* Begerow, R. Bauer & Oberw. (2)

***Microstromatales*** genera *incertae sedis*

*Jaminaea* Sipiczki & Kajdacs ex T. Kij. & Aime (4)

*Parajaminaea* T. Kij. & Aime (2)

*Pseudomicrostroma* T. Kij. & Aime (3)

*Sympodiomyopsis* Sugiy., Tokuoka & Komag. (3)

***Robbauerales*** Boekhout, Begerow, Q.M. Wang & F.Y. Bai

***Robbaueraceae*** Boekhout, Begerow, Q.M. Wang & F.Y. Bai

*Robbauera* Boekhout, Begerow, Q.M. Wang & F.Y. Bai (1)

***Tilletiales*** Kreisel ex R. Bauer & Oberw.

***Erratomycetaceae*** Denchev & T. Denchev

*Erratomyces* M. Piepenbr. & R. Bauer (5)

***Tilletiaceae*** J. Schröt.

*Conidiosporomyces* Vánky (3)

*Ingoldiomyces* Vánky (1)

*Neovossia* Körn. (1)

*Oberwinkleria* Vánky & R. Bauer (1)

*Salmacisia* D.R. Huff & A. Chandra (1)

*Tilletia* Tul. & C. Tul. (179)

***Malasseziomycetes*** Q.M. Wang & F.Y. Bai

***Malasseziales*** R.T. Moore

***Malasseziaceae*** Denchev & R.T. Moore

*Malassezia* Baillon (18)

***Moniliellomycetes*** Q.M. Wang, F.Y. Bai & Boekhout

***Moniliellales*** Q.M. Wang, F.Y. Bai & Boekhout

***Moniliellaceae*** Q.M. Wang, F.Y. Bai & Boekhout

*Moniliella* Stolk & Dakin (15)

***Ustilaginomycetes*** R. Bauer, Oberw. & Vánky

***Uleiellales*** Garnica, K. Riess, M. Schön, H. Butin, M. Lutz, Oberw. & R. Bauer

***Uleiellaceae*** Vánky

*Uleiella* J. Schröt. (2)

***Urocystidales*** R. Bauer & Oberw.

***Doassansiopsidaceae*** Begerow, R. Bauer & Oberw.

*Doassansiopsis* (Setch.) Dietel (14)

***Fereydowniaceae*** S. Nasr, Soudi, H.D.T. Nguyen, M. Lutz & Piątek

*Fereydownia* S. Nasr, M.R. Soudi, H.D.T. Nguyen, M. Lutz & Piątek (1)

***Floromycetaceae*** S. Nasr, Soudi, H.D.T. Nguyen, M. Lutz & Piątek

*Antherospora* R. Bauer, M. Lutz, Begerow, Piątek & Vánky (12)

*Floromyces* Vánky, M. Lutz & R. Bauer (1)

***Glomosporiaceae*** Cif.

*Thecaphora* Fingerh. (61)

***Mycosyringaceae*** R. Bauer & Oberw.

*Mycosyrinx* Beck (4)

***Urocystidaceae*** Begerow, R. Bauer & Oberw.

*Flamingomyces* R. Bauer, M. Lutz, Piątek, Vánky & Oberw. (1)

*Melanoxa* M. Lutz, Vánky & R. Bauer (2)

*Melanustilospora* Denchev (2)

*Mundkurella* Thirum. (5)

*Urocystis* Rabenh. ex Fuckel (166)

*Ustacystis* Zundel (2)

*Vankya* Ershad (3)

***Ustilaginales*** G. Winter

***Anthracoideaceae*** Denchev

*Anthracoidea* Bref. (112)

*Cintractia* Cornu (13)

*Dermatosorus* Sawada ex L. Ling (6)

*Farysia* Racib. (23)

*Farysporium* Vánky (1)

*Heterotolyposporium* Vánky (2)

*Kuntzeomyces* Henn. Ex Sacc. & P. Syd. (2)

*Leucocintractia* M. Piepenbr., Begerow & Oberw. (4)

*Moreaua* Liou & H.C. Cheng (39)

*Orphanomyces* Savile (3)

*Pilocintractia* Vánky (2)

*Planetella* Savile (1)

*Portalia* V. González, Vánky & Platas (1)

*Schizonella* J. Schröt. (5)

*Stegocintractia* M. Piepenbr., Begerow & Oberw. (6)

*Testicularia* Klotzsch (3)

*Tolyposporium* Woronin ex J. Schröt. (5)

*Trichocintractia* M. Piepenbr. (1)

*Ustanciosporium* Vánky (22)

***Cintractiellaceae*** Vánky

*Cintractiella* Boedijn (2)

***Clintamraceae*** Vánky

*Clintamra* Cordas & Durán (1)

***Geminaginaceae*** Vánky

*Geminago* Vánky & R. Bauer (1)

***Melanotaeniaceae*** Begerow, R. Bauer & Oberw.

*Exoteliospora* R. Bauer, Oberw. & Vánky (1)

*Melanotaenium* de Bary (9)

*Yelsemia* J. Walker (4)

***Pericladiaceae*** Vánky

*Pericladium* Pass. (3)

***Ustilaginaceae*** Tul. & C. Tul.

- Anthracocystis* Bref. (134)
- Macalpinomyces* Langdon & Full. (41)
- Moesziomyces* Vánky (8)
- Sporisorium* Ehrenb. ex Link (195)
- Tranzscheliella* Lavrov (17)
- Ustilago* (Pers.) Roussel (170)

***Websdaneaceae*** Vánky

- Restiosporium* Vánky (21)
- Websdanea* Vánky (1)

***Ustilaginales*** genera *incertae sedis*

- Ahmadiago* Vánky (1)
- Aizoago* Vánky (2)
- Anomalomyces* Vánky, M. Lutz & R.G. Shivas (2)
- Bambusiomyces* Vánky (1)
- Centrolepidosporium* R.G. Shivas & Vánky (1)
- Dirkmeia* F.Y. Bai, Q.M. Wang, Begerow & Boekhout (1)
- Eriocaulago* Vánky (2)
- Eriocortex* Vánky & R.G. Shivas (1)
- Eriosporium* Vánky (2)
- Franzpetrakia* Thirum. & Pavgi (3)
- Kalmanozyma* Q.M. Wang, F.Y. Bai, Begerow & Boekhout (3)
- Langdonia* McTaggart & R.G. Shivas (8)
- Melanopsichium* Beck (2)
- Mycosarcoma* Bref (5)
- Parvulago* R. Bauer, M. Lutz, Piątek, Vánky & Oberw. (1)
- Pattersoniomyces* Piątek, M. Lutz & C.A. Rosa (1)
- Shivasia* Vánky, M. Lutz & Piątek (1)
- Stollia* McTaggart & R.G. Shivas (5)
- Triodiomyces* McTaggart & R.G. Shivas (6)
- Yunchangia* L. Guo & B. Xu (1)

***Violaceomycetales*** Albu, Toome & Aime

***Violaceomycetaceae*** Albu, Toome & Aime

- Violaceomyces* Albu, Toome & Aime (1)

***Ustilaginomycetes*** genus *incertae sedis*

- Capitulocladosporium* L.Y. Sun, X. Sun & L.D. Guo (1)

***Wallemiomycotina*** Doweld

***Wallemiomycetes*** Zalar, de Hoog & Schroers

***Geminibasidiales*** H.D.T. Nguyen, N.L. Nick. & Seifert

***Geminibasidiaceae*** H.D.T. Nguyen, N.L. Nick. & Seifert

- Basidioascus* Matsush. (3)
- Geminibasidium* H.D.T. Nguyen, N.L. Nick. & Seifert (2)

***Wallemiales*** Zalar, de Hoog & Schroers

***Wallemiaceae*** R.T. Moore

- Wallemia* Johan-Olsen (8)

*Wallemiomycetes* genus *incertae sedis*  
*Chernovia* A.M. Yurkov & Begerow (1)

*Basidiomycota* genera *incertae sedis*  
*Anastomyces* W.P. Wu, B. Sutton & Gange (1)  
*Anguillomyces* Marvanová & Bärl. (1)  
*Arcispora* Marvanová & Bärl. (1)  
*Arrasia* Bernicchia, Gorjón & Nakasone (1)  
*Brevicellopsis* Hjortstam & Ryvarden (1)  
*Celatogloea* P. Roberts (1)  
*Cystogloea* P. Roberts (1)  
*Microstella* K. Ando & Tubaki (1)  
*Neotyphula* Wakef. (1)  
*Radulodontia* Hjortstam & Ryvarden (1)  
*Restilago* Vánky (1)

*Blastocladiomycota* T.Y. James  
*Blastocladiomycetes* Doweld  
*Blastocladiales* H.E. Petersen  
*Blastocladiaceae* H.E. Petersen  
*Allomyces* E.J. Butler (13)  
*Blastocladia* Reinsch (31)  
*Blastocladiopsis* Sparrow (2)

*Catenariaceae* Couch  
*Catenophlyctis* Karling (2)  
*Nematoceromyces* Doweld (3)

*Paraphysodermataceae* Doweld  
*Paraphysoderma* Boussiba, Zarka & T.Y. James (1)

*Sorochytriaceae* Dewel  
*Sorochytrium* Dewel (1)

*Blastocladiales* genus *incertae sedis*  
*Endoblastidium* Codreanu (1)

*Callimastigales* Doweld  
*Callimastigaceae* Fonseca  
*Callimastix* Weissenb. (2)

*Catenomycetales* Doweld  
*Catenomycetaceae* Doweld  
*Catenomyces* A.M. Hanson (2)

*Coelomomycetaceae* Couch  
*Coelomomyces* Keilin (66)  
*Coelomycidium* Debais. (2)

*Blastocladiomycetes* genus *incertae sedis*  
*Microallomyces* R. Emers. & J.A. Robertson (1)

***Physodermatomyces*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Physodermatales*** Caval.-Sm.

***Physodermataceae*** Sparrow

*Physoderma* Wallr. (99)

***Calcarisporiellomycota*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Calcarisporiellomycotina*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Calcarisporiellomyces*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Calcarisporiellales*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Calcarisporiellaceae*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

*Calcarisporiella* de Hoog (1)

*Echinochlamydosporium* X.Z. Jiang, H.Y. Yu, M.C. Xiang, X.Y. Liu & Xing Z. Liu (1)

***Caulochytriomycota*** Doweld

***Caulochytriomyces*** Doweld

***Caulochytriales*** Doweld

***Caulochytriaceae*** Subram.

*Caulochytrium* Voos & L.S. Olive (2)

***Chytridiomycota*** Doweld

***Chytridiomyces*** Caval.-Sm.

***Chytridiales*** Cohn

***Asterophlyctaceae*** Doweld

*Asterophlyctis* H.E. Petersen (2)

*Wheelerophlyctis* P.M. Letcher, M.J. Powell, W.J. Davis (2)\*

***Chytridiaceae*** Nowak.

*Chytridium* A. Braun (143)

*Dendrochytridium* Letcher, Longcore & M.J. Powell (1)

*Dinochytrium* Lesham, Letcher & M.J. Powell (1)

*Irineochytrium* Letcher, Longcore & M.J. Powell (1)

*Polyphlyctis* Karling (3)

*Zopfochytrium* M.J. Powell, Longcore, Letcher (1)\*

***Chytriomycetaceae*** Letcher

*Avachytrium* Vélez & Letcher (1)

*Chytriomyces* Karling (33)

*Entophlyctis* A. Fisch. (29)

*Fayochytriomyces* W.J. Davis, Letcher, Longcore & M.J. Powell (1)

*Obelidium* Nowak. (3)

*Odontochytrium* Vélez & Letcher (1)

*Pendulichytrium* K. Seto & Degawa (1)

*Physocladia* Sparrow (1)

*Podochytrium* Pfitzer (7)

*Rhizoclosmatium* H.E. Petersen (4)

*Siphonaria* H.E. Petersen (3)

***Phlyctochytriaceae*** Doweld

*Phlyctochytrium* J. Schröt. (73)

***Phlyctorhizaceae*** Doweld

*Phlyctorhiza* A.M. Hanson (3)

***Pseudorhizidiaceae*** Doweld

*Pseudorhizidium* M.J. Powell, Letcher & Longcore (1)

***Scherffeliomycetaceae*** Doweld

*Scherffeliomyces* Sparrow (4)

***Zygorhizidiaceae*** Doweld

*Zygorhizidium* Löwenthal (12)

***Chytridiales*** genus *incertae sedis*

*Delfinachytrium* Vélez & Letcher (1)

***Nephridiophagales*** Doweld

***Nephridiophagaceae*** R. Radek, Letcher, Wijayaw., P.M. Kirk & K.D. Hyde

*Coleospora* Gibbs (1)

*Nephridiophaga* Ivanić (12)

*Oryctospora* Purrini & Weiser (1)

*Peltomyces* Léger (1)

***Polyphagales*** Doweld

***Polyphagaceae*** F. Maekawa

*Polyphagus* Nowak. (15)

***Saccopodiales*** Doweld

***Saccopodiaceae*** Jacz. & P.A. Jacz.

*Saccopodium* Sorokīn (1)

***Chytridiomycetes*** families *incertae sedis*

***Amoebochytriaceae*** Doweld

*Amoebochytrium* Zopf (1)

***Sparrowiaceae*** Doweld

*Sparrowia* Willoughby (2)

***Sphaeromonadaceae*** Doweld

*Sphaeromonas* E. Liebet. (6)

***Tetrachytriaceae*** Doweld

*Tetrachytrium* Sorokīn (1)

***Thalassochytriaceae*** Doweld

*Thalassochytrium* Nyvall, M. Pedersén & Longcore (1)

***Chytridiomycetes*** genera *incertae sedis*

*Aphanistis* Sorokīn (2)

*Bertramia* Mesnil & Caullery (3)

*Blyttomyces* A.F. Bartsch (11)  
*Canteria* Karling (1)  
*Dangeardia* Schröd. (11)  
*Dangeardiana* Valkanov ex A. Batko (4)  
*Dictyomorpha* Mullins (2)  
*Gamolpidium* Vlădescu (2)  
*Ichthyochytrium* Plehn (1)  
*Loborhiza* A.M. Hanson (1)  
*Macrochytrium* Minden (1)  
*Megachytrium* Sparrow (1)  
*Mitochytridium* P.A. Dang. (2)  
*Mucophilus* Plehn (1)  
*Nowakowskia* Borzí (1)  
*Olpidiaster* Pascher (4)  
*Perolpidium* Doweld (2)  
*Physorhizophidium* Scherff. (1)  
*Plasmophagus* De Wild. (3)  
*Pseudopileum* Canter (1)  
*Rhizidiocystis* Sideris (1)  
*Rhizosiphon* Scherff. (4)  
*Rhopalophlyctis* Karling (1)  
*Riethophlyctis* Doweld (1)  
*Sacomycetes* Serbinow (2)  
*Sagittospora* Lubinsky (1)  
*Scherffeliomycopsis* Geitler (1)  
*Schizolpidium* Doweld (1)  
*Septolpidium* Sparrow (1)  
*Septosperma* Whiffen ex R.L. Seym. (5)  
*Solutoparies* Whiffen ex W.H. Blackw. & M.J. Powell (1)  
*Sorokinocystis* Doweld (1)  
*Sporophlyctidium* Sparrow (2)  
*Sporophlyctis* Serbinow (2)  
*Trematophlyctis* Pat. (1)  
*Truittella* Karling (1)  
*Volvorax* Doweld (1)  
*Zygochytrium* Sorokīn (1)  
*Zygophlyctis* Doweld (1)

***Cladochytriomycetes*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Cladochytriales*** Mozl.-Standr.

***Catenochytridiaceae*** Doweld

*Catenochytridium* Berdan (6)

***Cladochytriaceae*** J. Schröt.

*Cladochytrium* Nowak. (51)

***Endochytriaceae*** Sparrow ex D.J.S. Barr

*Diplophlyctis* J. Schröt. (12)

*Endochytrium* Sparrow (7)

***Nowakowskiellaceae*** Sparrow ex Mozl.-Standr.

*Nowakowskiella* J. Schröt. (18)

**Septochytriaceae** Mozl.-Standr.

*Septochytrium* Berdan (5)

**Cladochytriales** genera *incertae sedis*

*Allochytridium* D.J.S. Barr & Désauln. (2)

*Cylindrochytridium* Karling (2)

*Nephrochytrium* Karling (8)

**Lobulomyces** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

**Lobulomycetales** D.R. Simmons

**Alogomycetaceae** Doweld

*Alogomyces* D.R. Simmons & Letcher (1)

**Lobulomycetaceae** D.R. Simmons

*Clydaea* D.R. Simmons (1)

*Cyclopsomyces* K. Seto & Degawa (1)

*Lobulomyces* D.R. Simmons (2)

*Maunachytrium* D.R. Simmons (1)

**Lobulomycetales** genus *incertae sedis*

*Algochytrops* Doweld (1)

**Mesochytriomycetes** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

**Gromochytriales** Karpov & Aleoshin

**Gromochytriaceae** Karpov & Aleoshin

*Gromochytrium* Karpov & Aleoshin (1)

**Mesochytriales** Doweld

**Mesochytriaceae** Doweld

*Mesochytrium* B.V. Gromov, Mamkaeva & Pljusich (1)

**Polychytriomycetes** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

**Polychytriales** Longcore & D.R. Simmons

**Arkayaceae** Doweld

*Arkaya* Longcore & D.R. Simmons (2)

**Polychytriaceae** Doweld

*Karlingiomyces* Sparrow (8)

*Lacustromyces* Longcore (1)

*Neokarlingia* Longcore & D.R. Simmons (1)

*Polychytrium* Ajello (1)

**Rhizophyidiomycetes** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

**Rhizophydiales** Letcher

**Alphamycetaceae** Letcher

*Alphamyces* Letcher (1)



- Betamyces* Letcher (1)  
*Gammamyces* Letcher (1)
- Angulomycetaceae*** Letcher  
*Angulomyces* Letcher (1)
- Aquamycetaceae*** Letcher  
*Aquamycetes* Letcher (1)
- Batrachochytriaceae*** Doweld  
*Batrachochytrium* Longcore, Pessier & D.K. Nichols (2)
- Collimycetaceae*** K. Seto & Degawa  
*Collimyces* K. Seto & Degawa (1)
- Coralloidiomycetaceae*** Doweld  
*Coralloidiomyces* Letcher (1)
- Dinomycetaceae*** Karpov & Guillou  
*Dinomyces* Karpov & Guillou (1)
- Globomycetaceae*** Letcher  
*Globomyces* Letcher (1)  
*Urceomyces* Letcher (1)
- Gorgonomycetaceae*** Letcher  
*Gorgonomyces* Letcher (1)
- Halomycetaceae*** Letcher & M.J. Powell  
*Halomyces* Letcher & M.J. Powell (1)  
*Paludomyces* Letcher & M.J. Powell (1)  
*Paranomyces* Letcher & M.J. Powell (1)  
*Ulkenomyces* Letcher & M.J. Powell (1)
- Kappamycetaceae*** Letcher  
*Kappamyces* Letcher & M.J. Powell (1)
- Operculomycetaceae*** Doweld  
*Operculomyces* M.J. Powell, Letcher & Longcore (1)
- Pateramycetaceae*** Letcher  
*Pateramyces* Letcher (1)
- Protrudomycetaceae*** Letcher  
*Protrudomyces* Letcher (1)
- Rhizophydiaceae*** Letcher  
*Rhizophyidium* Schenk ex Rabenh. (218)
- Staurastromycetaceae*** S. Van den Wyngaert, K. Seto & K. Rojas  
*Staurastromyces* Van den Wyngaert, K. Seto & K. Rojas (1)

**Terramycetaceae** Letcher

*Boothiomyces* Letcher (1)

*Terramyces* Letcher (1)

**Uebelmesseromycetaceae** M.J. Powell & Letcher

*Uebelmesseromyces* M.J. Powell & Letcher (1)

**Rhizophydiales** genus *incertae sedis*

*Homolaphlyctis* Longcore, Letcher & T.Y. James (1)

**Rhizophlyctidomycetes** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

**Rhizophlyctidales** Letcher

**Arizonaphlyctidaceae** Letcher

*Arizonaphlyctis* Letcher (1)

**Borealophlyctidaceae** Letcher

*Borealophlyctis* Letcher (2)

**Rhizophlyctidaceae** H.E. Petersen

*Rhizophlyctis* A. Fisch. (31)

**Sonoraphlyctidaceae** Letcher

*Sonoraphlyctis* Letcher (1)

**Spizellomycetes** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

**Spizellomycetales** D.J.S. Barr

**Powellomycetaceae** D.R. Simmons

*Fimicolochytrium* D.R. Simmons & Longcore (2)

*Geranomycetes* D.R. Simmons (4)

*Powellomyces* Longcore (2)

*Thoreauomyces* D.R. Simmons & Longcore (1)

**Spizellomycetaceae** D.J.S. Barr

*Barromyces* M.J. Powell & Letcher (1)

*Brevicalcar* Letcher & M.J. Powell (1)

*Bulbosomyces* Letcher & Longcore (1)

*Gaertneriomyces* D.J.S. Barr (4)

*Gallinipes* Letcher & M.J. Powell (3)

*Kochiomyces* D.J.S. Barr (1)

*Spizellomyces* D.J.S. Barr (8)

*Triparticalcar* D.J.S. Barr (2)

**Synchytriomycetes** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

**Synchytriales** Doweld

**Synchytriaceae** J. Schröt.

*Carpenterophlyctis* Doweld (2)

*Endodesmidium* Canter (1)

*Johnkarlingia* Pavgi & S.L. Singh (1)

*Synchytrium* de Bary & Woronin (255)

***Synchytriales*** genus *incertae sedis*

*Micromyces* P.A. Dang. (19)

***Chytridiomycota*** genera *incertae sedis*

*Achlyella* Lagerh. (1)

*Coenomyces* K.N. Deckenb. (1)

*Achlyogeton* Schenk (4)

***Entomophthoromycota*** Humber

***Entomophthoromycotina*** Humber

***Entomophthoromycetes*** Humber

***Entomophthorales*** G. Winter

***Ancylistaceae*** J. Schröt.

*Ancylistes* Pfitzer (6)

*Conidiobolus* Bref. (54)

*Macrobiotophthora* Reukauf (2)

***Completoriaceae*** Humber

*Completoria* Lohde (1)

***Entomophthoraceae*** Nowak.

*Batkoa* Humber (10)

*Entomophaga* A. Batko (22)

*Entomophthora* Fresen. (63)

*Erynia* (Nowak. ex A. Batko) Remaud. & Hennebert (27)

*Eryniopsis* Humber (5)

*Furia* (A. Batko) Humber (16)

*Massospora* Peck (15)

*Orthomyces* Steinkr., Humber & J.B. Oliv. (1)

*Strongwellsea* A. Batko & J. Weiser (3)

*Tarichium* Cohn *sensu stricto* (26)

*Zoophthora* A. Batko (38)

***Meristacraceae*** Humber

*Meristacrum* Drechsler (= *Tabanomyces* Couch, R.J. Andrejeva, Laird & Nolan) (2)

***Neozygitomycetes*** Humber

***Neozygiales*** Humber

***Neozygitaceae*** Ben Ze'ev, R.G. Kenneth & Uziel

*Apterivorax* S. Keller (2)

*Neozygites* Witslaczil (22)

*Tarichium* Cohn pro parte (27)

*Thaxterosporium* Ben Ze'ev & R.G. Kenneth (1)

***Entorrhizomycota*** R. Bauer, Garnica, Oberw., Riess, Weiß & Begerow

***Entorrhizomycetes*** Begerow, M. Stoll & R. Bauer

***Entorrhizales*** R. Bauer & Oberw.

***Entorrhizaceae*** R. Bauer & Oberw.

*Entorrhiza* C.A. Weber (c.15)

***Talbotiomycetales*** K. Riess, R. Bauer, R. Kellner, Kemler, Piątek, Vánky & Begerow

**Talbotiomycetaceae** K. Riess, R. Bauer, R. Kellner, Kemler, Piątek, Vánky & Begerow  
*Talbotiomyces* Vánky, R. Bauer & Begerow (1)

**Glomeromycota** C. Walker & A. Schüssler

**Archaeosporomycetes** Sieverd., G.A. Silva, B.T. Goto & Oehl

**Archaeosporales** C. Walker & A. Schüssler

**Ambisporaceae** C. Walker, Vestberg & A. Schüssler (= *Appendicisporaceae* C. Walker, Vestberg & A. Schüssler)

*Ambispora* C. Walker, Vestberg & A. Schüssler (basonym *Appendicispora* Spain, Oehl & Sieverding) (11)

**Archaeosporaceae** J.B. Morton & D. Redecker

*Archaeospora* J.B. Morton & D. Redecker (6)

*Intraspora* Oehl & Sieverd. (1)

*Palaeospora* Oehl, Palenz., Sánchez-Castro & G.A. Silva (1)

**Geosiphonaceae** Engl. & E. Gilg

*Geosiphon* F. Wettst. (1)

**Glomeromycetes** Caval.-Sm. emend. Oehl, G.A. Silva, B.T. Goto & Sieverd.

**Diversisporales** C. Walker & A. Schüssler emend. Oehl, G.A. Silva & Sieverd.

**Acaulosporaceae** J.B. Morton & Benny

*Acaulospora* Gerd. & Trappe (= *Kuklospora* Oehl & Sieverd.) (57)

**Diversisporaceae** C. Walker & A. Schüssler

*Corymbiglomus* Błaszk. & Chwat (3)

*Desertispora* Błaszk., Kozłowska, Ryszk, Al-Yahya'ei & Symanczik (1)

*Diversispora* C. Walker & A. Schüssler (21)

*Otospora* Oehl, Palenz. & N. Ferrol (1)

*Redeckera* C. Walker & A. Schüssler (6)

*Sieverdingia* Błaszk., Niezgoda & B.T. Goto (1)

*Tricispora* Oehl, Sieverd., G.A. Silva & Palenz. (1)

**Pacisporaceae** C. Walker, Błaszk., A. Schüssler & Schwarzott

*Pacispora* Sieverd. & Oehl (7)

**Sacculosporaceae** Oehl, Sieverd., G.A. Silva, B.T. Goto, Sánchez-Castro & Palenz.

*Sacculospora* Oehl, Sieverd., G.A. Silva, B.T. Goto, I.C. Sánchez & Palenz. (2)

**Gigasporales** S.P. Gautam & U.S. Patel (= *Gigasporales* Sieverd., G.A. Silva, B.T. Goto & Oehl)

**Dentiscutataceae** F.A. Souza, Oehl & Sieverd.

*Dentiscutata* Sieverd., F.A. Souza & Oehl (9)

*Fuscutata* Oehl, F.A. Souza & Sieverd. (5)

*Quatunica* F.A. Souza, Sieverd. & Oehl (1)

**Gigasporaceae** J.B. Morton & Benny

*Gigaspora* Gerd. & Trappe (7)

**Intraornatosporaceae** B.T. Goto & Oehl

*Intraornatospora* B.T. Goto, Oehl & G.A. Silva (1)

*Paradentiscutata* B.T. Goto, Oehl & G.A. Silva (2)

**Racocetraceae** Oehl, Sieverd. & F.A. Souza

*Cetraspora* Oehl, F. A. Souza & Sieverd. (8)

*Racocetra* Oehl, F.A. Souza & Sieverd. (13)

**Scutellosporaceae** Sieverd., F.A. Souza & Oehl

*Bulbospora* Oehl & G.A. Silva (1)

*Orbispora* Oehl, G.A. Silva & D.K. Silva (2)

*Scutellospora* C. Walker & F.E. Sanders (10)

**Glomerales** J.B. Morton & Benny emend. Oehl, G.A. Silva, B.T. Goto & Sieverd.

**Entrophosporaceae** Oehl & Sieverd.

*Albahypha* Oehl, G.A. Silva, B.T. Goto & Sieverd. (2)

*Claroideoglomus* C. Walker & A. Schüssler (6)

*Entrophospora* R.N. Ames & R.W. Schneid. (2)\*

**Glomeraceae** Piroz. & Dalpé emend. Oehl, G.A. Silva & Sieverd.

*Dominikia* Błaszk., Chwat & Kovács (11)

*Funneliglomus* Corazon-Guivin, G.A. Silva & Oehl (1)

*Funneliformis* C. Walker & A. Schüssler emend. Oehl, G.A. Silva & Sieverd. (11)

*Glomus* Tul. & C. Tul. emend. Oehl, G.A. Silva & Sieverd. (49)

*Halonatospora* Błaszk., Niezgoda, B.T. Goto & Kozłowska (1)

*Kamienskia* Błaszk., Chwat & Kovács (1)

*Microdominikia* Oehl, Corazon-Guivin & G.A. Silva (1)

*Microkamienskia* Corazon-Guivin, G.A. Silva & Oehl (3)\*

*Nanoglomus* Corazon-Guivin, G.A. Silva & Oehl (1)

*Oehlia* Błaszk., Kozłowska, Niezgoda, B.T. Goto & Dalpé (1)

*Orientoglomus* G.A. Silva, Oehl & Corazon-Guivin (1)

*Rhizoglomus* Sieverd., G.A. Silva & Oehl (22)\*

*Sclerocystis* Berk. & Broome (8)

*Sclerocarpum* B.T. Goto, Błaszk., Niezgoda, Kozłowska & Jobim (1)

*Septoglomus* Sieverd., G.A. Silva & Oehl (13)

*Simiglomus* Sieverd., G.A. Silva & Oehl (1)

*Viscospora* Sieverd. Oehl & G.A. Silva (1)

**Paraglomeromycetes** Oehl, G.A. Silva, B.T. Goto & Sieverd.

**Paraglomerales** C. Walker & A. Schüssler

**Paraglomeraceae** J.B. Morton & D. Redecker

*Paraglomus* J.B. Morton & D. Redecker (8)

*Innospora* Błaszk., Kovács, Chwat & Kozłowska (1)

**Pervetustaceae** Błaszk., Chwat, Kozłowska, Symanczik & Al-Yahya'ei

*Pervetustus* Błaszk., Chwat, Kozłowska, Symanczik & Al-Yahya'ei (1)

**Kickxellomycota** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

**Asellariomycetes** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

**Asellariales** Manier ex Manier & Lichtw.

**Asellariaceae** Manier ex Manier & Lichtw.

*Asellaria* R.A. Poiss. (9)

**Asellariales** genus *incertae sedis*

*Baltomyces* Cafaro (1)

***Barbatosporomycetes*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Barbatosporales*** Doweld

***Barbatosporaceae*** Doweld

*Barbatospora* M.M. White, Siri & Lichtw. (1)

***Dimargaritomyces*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Dimargaritales*** R.K. Benj.

***Dimargaritaceae*** R.K. Benj.

*Dimargaris* Tiegh. (7)

*Dispira* Tiegh. (4)

*Tieghemiomyces* R.K. Benj. (2)

***Dimargaritales*** genus *incertae sedis*

*Spinalia* Vuill. (1)

***Harpellomyces*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Harpellales*** Lichtw. & Manier

***Harpellaceae*** L. Léger & Duboscq ex P.M. Kirk & P.F. Cannon

*Carouxella* Manier, Rioux & Whisler (2)

*Harpella* L. Léger & Duboscq (7)

*Harpellomyces* Lichtw. & S.T. Moss (4)

*Klastostachys* Lichtw., M.C. Williams & M.M. White (1)

*Stachylina* L. Léger & M. Gauthier (40)

*Stachylinoides* Lichtw. & López-Lastra (1)

***Legeriomycetaceae*** Pouzar

*Austrosmittium* Lichtw. & M.C. Williams (5)

*Bactromyces* William & Strongman (1)

*Baetimyces* L.G. Valle & Santam. (1)

*Bojamyces* Longcore (3)

*Capniomyces* S.W. Peterson & Lichtw. (3)

*Caudomyces* Lichtw., Kobayasi & Indoh (3)

*Coleopteromyces* Ferrington, Lichtw. & López-Lastra (1)

*Dacryodiomyces* Lichtw. (1)

*Ejectosporus* S.W. Peterson, Lichtw. & M.C. Williams (1)

*Ephemerellomyces* M.M. White & Lichtw. (1)

*Furculomyces* Lichtw. & M.C. Williams (3)

*Gauthieromyces* Lichtw. (3)

*Genistelloides* S.W. Peterson, Lichtw. & B.W. Horn (5)

*Genistellospora* Lichtw. (6)

*Glotzia* M. Gauthier ex Manier & Lichtw. (7)

*Graminella* L. Léger & M. Gauthier ex Manier (3)

*Laculus* William & Strongman (1)

*Lancisporomyces* Santam. (5)

*Legerioides* M.M. White (1)

*Legeriomyces* Pouzar (11)

*Legeriosimilis* M.C. Williams, Lichtw., M.M. White & J.K. Misra (8)

*Orphella* L. Léger & M. Gauthier (12)  
*Pennella* Manier (8)  
*Plecopteromyces* Lichtw., Ferrington & López-Lastra (3)  
*Pseudoharpella* Ferrington, M.M. White & Lichtw. (1)  
*Pteromaktron* Whisler (2)  
*Simuliomyces* Lichtw. (1)  
*Sinotrichium* Juan Wang (1)  
*Smittium* R.A. Poiss. (1)  
*Spartiella* Tuzet & Manier ex Manier (3)  
*Stipella* L. Léger & M. Gauthier (2)  
*Stypomyces* Doweld (2)  
*Tectomyces* L.G. Valle & Santam. (3)  
*Trichozygospora* Lichtw. (1)  
*Trifoliellum* Strongman & M.M. White (1)  
*Zancudomyces* Yan Wang, Tretter, Lichtw. & M.M. White (1)  
*Zygopolaris* S.T. Moss, Lichtw. & Manier (2)  
*Zygopolaropsis* Hirok. Sato & Degawa (1)

***Harpellales* genus *incertae sedis***

*Trissocladomyces* Doweld (1)

***Kickxellomycetes*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Kickxellales*** Kreisel ex R.K. Benj.

***Kickxellaceae*** Linder

*Coemansia* Tiegh. & G. Le Monn. (25)  
*Dipsacomycetes* R.K. Benj. (1)  
*Kickxella* Coem. (1)  
*Linderina* Raper & Fennell (2)  
*Martensella* Coem. (1)  
*Martensiomyces* J.A. Mey. (1)  
*Mycoemilia* Kurihara, Degawa & Tokum. (1)  
*Myconymphaea* Kurihara, Degawa & Tokum. (1)  
*Pinnaticoemansia* Kurihara & Degawa (1)  
*Spirodactylon* R.K. Benj. (1)  
*Spiromyces* R.K. Benj. (2)

***Ramicandelaberomycetes*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Ramicandelaberales*** Doweld

***Ramicandelaberaceae*** Doweld

*Ramicandelaber* Y. Ogawa, S. Hayashi, Degawa & Yaguchi (4)

***Kickxellomycotina* genera *incertae sedis***

*Aenigmatospora* R.F. Castañeda, Saikawa, Guarro & M. Caldich (1)  
*Ballocephala* Drechsler (1)  
*Zygnemomyces* K. Miura (2)

***Monoblepharomycota*** Doweld

***Hyaloraphidiomycetes*** Doweld

***Hyaloraphidiales*** Doweld

***Hyaloraphidiaceae*** Doweld

*Hyaloraphidium* Korshikov (1)

***Monoblepharidomycetes*** J.H. Schaffn.

***Monoblepharidales*** Sparrow

***Gonapodyaceae*** H.E. Petersen ex P.M. Kirk, P.F. Cannon & J.C. David

*Gonapodya* A. Fisch. (5)

*Monoblepharella* Sparrow (5)

***Harpochytriaceae*** Wille

*Harpochytrium* Lagerh. (12)

***Monoblepharidaceae*** A. Fisch.

*Monoblepharis* Cornu (15)

***Oedogoniomycetaceae*** D.J.S. Barr

*Oedogoniomyces* Kobayasi & M. Ôkubo (1)

***Telasphaerulaceae*** Longcore & T.Y. James

*Telasphaerula* Longcore & T.Y. James (1)

***Sanchytriomycetes*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Sanchytriales*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Sanchytriaceae*** Karpov & Aleoshin

*Amoeboradix* Karpov, López-García, Mamkaeva & Moreira (1)

*Sanchytrium* Karpov & Aleoshin (1)

***Mortierellomycota*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov

***Mortierellomycotina*** Kerst. Hoffm., K. Voigt & P.M. Kirk

***Mortierellomycetes*** Doweld

***Mortierellales*** Caval.-Sm.

***Mortierellaceae*** A. Fisch.

*Aquamortierella* Embree & Indoh (1)

*Dissophora* Thaxt. (3)

*Gamsiella* (R.K. Benj.) Benny & M. Blackw. (1)

*Lobosporangium* M. Blackw. & Benny (1)

*Modicella* Kanouse (2)

*Mortierella* Coem. (112)\*

***Mucoromycota*** Doweld

***Mucoromycotina*** Benny

***Endogonomycetes*** Doweld

***Endogonales*** Jacz. & P.A. Jacz.

***Densosporaceae*** Desirò, M.E. Sm., Bidartondo, Trappe & Bonito

*Densospora* McGee (9)\*

***Endogonaceae*** Paol.

*Endogone* Link (26)

*Jimgerdemannia* Trappe (2)



*Peridiospora* C.G. Wu & Suh J. Lin (2)  
*Sclerogone* Warcup (1)  
*Sphaerocreas* Sacc. & Ellis (4)

***Mucoromycetes*** Doweld

***Mucorales*** Fr.

***Backusellaceae*** K. Voigt & P.M. Kirk

*Backusella* Hesselt. & J.J. Ellis (13)

***Choanephoraceae*** J. Schröt.

*Blakeslea* Thaxt. (2)  
*Choanephora* Curr. (2)  
*Gilbertella* Hesselt. (2)  
*Poitrasia* P.M. Kirk (1)

***Cunninghamellaceae*** Naumov ex R.K. Benj.

*Absidia* Tiegh. (20)  
*Chlamydoabsidia* Hesselt. & J.J. Ellis (1)  
*Cunninghamella* Matr. (13)  
*Gongronella* Ribaldi (6)  
*Halteromyces* Shipton & Schipper (1)  
*Hesseltinella* H.P. Upadhyay (1)

***Lentamyetaceae*** K. Voigt & P.M. Kirk

*Lentamyces* Kerst. Hoffm. & K. Voigt (4)

***Lichtheimiaceae*** Kerst. Hoffm., Walther & K. Voigt

*Circinella* Tiegh. & G. Le Monn. (11)  
*Dichotomocladium* Benny & R.K. Benj. (5)  
*Fennellomyces* Benny & R.K. Benj. (4)  
*Lichtheimia* Vuill. (7)  
*Phascolomyces* Boedijn ex Benny & R.K. Benj. (1)  
*Rhizomucor* Lucet & Costantin (6)  
*Thamnostylum* Arx & H.P. Upadhyay (4)  
*Thermomucor* Subrahm., B.S. Mehrotra & Thirum. (1)  
*Zychaea* Benny & R.K. Benj. (1)

***Mucoraceae*** Dumort.

*Actinomucor* Schostak. (1)  
*Ambomucor* R.Y. Zheng & X.Y. Liu (3)  
*Benjaminiella* Arx (3)  
*Chaetocladium* Fresen. (2)  
*Cokeromyces* Shanor (1)  
*Dicranophora* J. Schröt. (1)  
*Ellisomyces* Benny & R.K. Benj. (1)  
*Helicostylum* Corda (2)  
*Hyphomucor* Schipper & Lunn (1)  
*Isomucor* J.I. Souza, Pires-Zottar. & Harakava (2)  
*Kirkiana* L.S. Loh, Kuthub. & Nawawi (1)  
*Kirkomyces* Benny (1)  
*Mucor* Fresen. (91)\*  
*Nawawiella* L.S. Loh & Kuthub. (1)

- Parasitella* Bainier (1)  
*Pilaira* Tiegh. (7 and 1 subspecies)  
*Pirella* Bainier (2)  
*Rhizopodopsis* Boedijn (1)  
*Thamnidium* Link (1)  
*Tortumyces* L.S. Loh (2)
- Mycocladaceae*** Kerst. Hoffm.  
*Mycocladus* Beauverie (1)
- Mycotyphaceae*** Benny & R.K. Benj.  
*Mycotypha* Fenner (4)
- Phycomycetaceae*** Arx  
*Phycomyces* Kunze (3)  
*Spinellus* Tiegh. (5)
- Pilobolaceae*** Corda  
*Pilobolus* Tode (10 and 1 subspecies)  
*Utharomyces* Boedijn ex P.M. Kirk & Benny (1 sp. and 1 subspecies)
- Radiomycetaceae*** Hesselt. & J.J. Ellis  
*Radiomyces* Embree (3)
- Rhizopodaceae*** K.voigt & P.M. Kirk  
*Rhizopus* Ehrenb. (13)  
*Sporodiniella* Boedijn (1)  
*Syzygites* Ehrenb. (1)
- Saksenaeaceae*** Hesselt. & J.J. Ellis  
*Apophysomyces* P.C. Misra (5)  
*Saksenaea* S.B. Saksena (5)
- Syncephalastraceae*** Naumov ex R.K. Benj.  
*Protomyocladus* Schipper & Samson (1)  
*Syncephalastrum* J. Schröt. (2)
- Umbelopsidomycetes*** Tedersoo, Sanchez-Ramirez, Kõljalg, Bahram, M. Döring, Schigel, T.W. May, M. Ryberg & Abarenkov  
***Umbelopsidales*** Spatafora & Stajich  
***Umbelopsidaceae*** W. Gams & W. Mey.  
*Umbelopsis* Amos & H.L. Barnett (16)
- Mucoromycotina*** genera *incertae sedis*  
*Bifiguratus* Torr.-Cruz & Porras-Alfaro (1)  
*Mucorodium* K.W. Zaleski (1)  
*Palaeoendogone* Strullu-Derr., Kenrick, Pressel, Duckett, J.P. Rioult & Strullu (1)  
*Planticonsortium* C. Walker & D. Redecker (1)
- Mucoromycota*** genus *incertae sedis*  
*Nothadelphia* Degawa & W. Gams

***Neocallimastigomycota*** M.J. Powell  
***Neocallimastigomycetes*** M.J. Powell  
***Neocallimastigales*** J.L. Li, I.B. Heath & L. Packer  
***Neocallimastigaceae*** I.B. Heath (= *Piromonadaceae* Doweld; = *Anaeromycetaceae* Doweld)  
*Anaeromyces* Breton, Bernalier, Dusser, Fonty, B. Gaillard & J. Guillot (4)  
*Buwchfawromyces* T.M. Callaghan & G.W. Griff. (1)  
*Caecomycetes* J.J. Gold (5)  
*Cyllamyces* Ozkose, B.J. Thomas, D.R. Davies, G.W. Griff. & Theodorou (1)  
*Feramyces* Radwa Hanafy, Mostafa Elshahed & Noha Youssef (1)  
*Liebetanzomyces* Joshi, G.W. Griff. & Dagar (1)  
*Neocallimastix* Vávra & Joyon ex I.B. Heath (7)  
*Oontomyces* Dagar (1)  
*Orpinomyces* D.J.S. Barr, H. Kudo, Jakober & K.J. Cheng (2)  
*Pecoramyces* Hanafy, N.H. Youssef, G.W. Griff. & Elshahed (1)  
*Piromyces* J.J. Gold, I.B. Heath & Bauchop (= *Piromonas* E. Liebet.) (6)

***Olpidiomycota*** Doweld  
***Olpidiomycetes*** Doweld  
***Olpidiales*** Caval.-Sm.  
***Olpidiaceae*** J. Schröt.  
*Chytridhaema* Moniez (1)  
*Cibdelia* Juel (1)  
*Leiolpidium* Doweld (5)  
*Olpidium* (A. Braun) J. Schröt. (ca. 50)

***Rozellomycota*** Doweld  
***Rudimicrosporea*** Sprague  
***Metchnikovellida*** Vivier  
***Amphiacanthidae*** Larsson  
*Amphiacantha* Caullery & Mesnil (3)

***Metchnikovellidae*** Caullery & Mesnil emend. Larsson  
*Amphiamblys* Caullery & Mesnil (7)  
*Caulleryetta* Dogiel (8)  
*Desportesia* Issi & Voronin (1)  
*Metchnikovella* Caullery & Mesnil (8)

***Microsporidea*** Corliss & Levine  
***Amblyosporida*** Tokarev & Issi  
***Amblyosporidae*** Weiser emend. Tokarev & Issi  
*Aedispora* Kilochitskii (1)  
*Amblyospora* Hazard & Oldacre (90)  
*Andreanna* Simakova, Vossbrinck & Andreadis (1)  
*Becnelia* Tonka & Weiser (1)  
*Crepidulospora* Simakova, Pankova & Issi (1)  
*Cristulospora* Khodzhaeva & Issi (3)  
*Culicospora* Weiser (2)  
*Culicosporella* Weiser (1)  
*Dimeiospora* Simakova, Pankova & Issi (1)  
*Edhazardia* Becnel, V. Sprague & Fukuda (1)  
*Hyalinocysta* Hazard & Oldacre (1)  
*Intrapredatorus* Chen, Kuo & Wu (1)

*Novothelohania* Andreadis, Simakova, Vossbrinck, Shepard & Yurchenko (1)  
*Parastempellia* Khodzhaeva (2)  
*Parathelohania* Codreanu (25)  
*Trichoctosporea* Larsson (1)  
*Tricornia* Pell & Canning (1)

***Caudosporidae*** Weiser emend. Tokarev & Issi

*Binucleospora* Bronnvall & Larsson (1)  
*Caudospora* J. Weiser (1)  
*Flabelliforma* Canning, R. Killick-Kendrick & Killick-Kendrick (4)  
*Myrmecomorba* R.M. Plowes, J.J. Becnel, E.G. LeBrun, D.H. Oi, S.M. Valles, N.T. Jones & L.E. Gilbert (1)  
*Neoflabelliforma* Morris & Freeman (2)  
*Octosporea* Flu (18)  
*Polydispyrenia* Canning & Hazard (2)  
*Ringueletium* Garcia (1)  
*Scipionospora* Bylén & Larsson (1)  
*Weiseria* Doby & Saguez (3)

***Gurleyidae*** Sprague emend. Tokarev & Issi

*Agglomerata* Larsson & Yan (5)  
*Binucleata* Refardt, Decaestecker, Johnson & Vávra (1)  
*Conglomerata* Vavra, Fiala, Krylova, Petrusek, Hylis (1)  
*Episeptum* Larsson (6)  
*Gurleya* Doflein (10)  
*Lanatospora* Voronin (4)  
*Larssonia* Vidtmann & Sokolova (2)  
*Marssoniella* Lemmermann (1)  
*Norlevinea* Vávra (1)  
*Paraepiseptum* Hylis, Oborník, Nebesářová & Vávra (4)  
*Pseudoberwaldia* Vavra, Fiala, Krylova, Petrusek, Hylis (1)  
*Senoma* Simakova, Pankova, Tokarev & Issi (1)  
*Zelenkaia* Hylis, Oborník, Nebesářová & Vávra (1)

***Amblyosporida*** genera *incertae sedis*

*Alfvenia* Larsson (4)  
*Hazardia* Weiser (2)  
*Multilamina* Becnel, Scheffrahn, Vossbrinck & Bahder (1)  
*Takaokaspora* Andreadis, Takaoka, Otsuka & Vossbrinck (1)  
*Trichotuzetia* Vávra, Larsson & Baker (1)

***Neopereziiida*** Tokarev & Issi

***Berwaldiidae*** Simakova, Tokarev & Issi

*Berwaldia* Larsson (4)  
*Fibrillanosema* Slothouber Galbreath, Smith, Terry, Becnel & Dunn (1)

***Neopereziiidae*** Voronin emend. Issi, Tokarev, Seliverstova & Voronin

*Bacillidium* Janda (5)  
*Bryonosema* Canning, Refardt, Vossbrinck, Okamura & Curry (2)  
*Neoperezia* Issi & Voronin (2)  
*Pseudonosema* Canning, Refardt, Vossbrinck, Okamura & Curry (1)  
*Schroedera* Morris & Adams (2)

- Trichonosema* Canning, Refardt, Vossbrinck, Okamura & Curry (2)
- Tubulinosematidae*** Franzen, Fischer, Schröder, Schölmerich & Schneuwly emend. Tokarev & Issi  
*Anncaliia* Issi, Krylova & Nikolaeva (6)  
*Kneallhazia* Sokolova & Fuxa (2)  
*Tubulinosema* Franzen, Fischer, Schröder, Schölmerich & Schneuwly (5)
- Neoperezüida*** genera *incertae sedis*  
*Janacekia* Larsson (6)  
*Systemostrema* Hazard & Oldacre (5)
- Ovavesiculida*** Tokarev & Issi  
***Ovavesiculidae*** Sprague, Becnel & Hazard emend. Tokarev & Issi  
*Antonospora* Fries, Paxton, Tengo, Slemenda, da Silva, & Pieniazek (2)  
*Ovavesicula* Andreadis & Hanula (1)  
*Paranosema* Sokolova, Dolgikh, Morzhina, Nassonova, Issi, Terry, Ironside, Smith (4)
- Ovavesiculida*** genus *incertae sedis*  
*Nematocida* Troemel, Félix, Whiteman, Barrière & Ausubel (1)
- Glugeida*** Gurley emend. Tokarev & Issi  
***Facilisporidae*** Jones, Prospero-Porta & Kim  
*Facilispora* Jones, Prospero-Porta & Kim (1)
- Glugeidae*** Gurley emend. Tokarev & Issi  
*Alloglugea* Paperna & Lainson (1)  
*Amazonospora* Azevedo & Matos (1)  
*Glugea* Thélohan (40)  
*Ichthyosporidium* Caullery & Mesnil (5)  
*Johenrea* Lange, Becnel, Razafindratiana, Przybyszewski & Razafindrafara (1)  
*Loma* Morrison & Sprague (12)  
*Parapleistophora* Issi, Kadyrova, Pushkar, Khodzhaeva & Krylova (1)  
*Pseudoloma* J.L. Matthews, A.M.V. Br., K. Larison, J.K. Bishop-Stewart, P. Rogers & M.L. Kent (6)
- Myosporidae*** Stentiford, Bateman, Small, Moss, Shields, Reece & Tuck  
*Myospora* Stentiford, Bateman, Small, Moss, Shields, Reece & Tuck (1)
- Perezüidae*** Loubes, Maurand, Comps & Campillo emend. Tokarev & Issi  
*Ameson* Sprague (2)  
*Nadelspora* Olson, Tiekotter & Reno (1)  
*Perezia* Léger & Duboscq (12)  
*Pernicivesicula* Bylén & Larsson (1)
- Pleistophoridae*** Doflein emend. Tokarev & Issi  
*Dasyatispora* Diamant, Goren, Yokeş, Galil, Klopman, Huchon, Szitenberg & Karhan (1)  
*Heterosporis* Schubert (4)  
*Myosporidium* Baquero, Rubio, Moura, Pieniazek & Jordana (1)  
*Ovipleistophora* Pekkarinen, Lom & Nilsen (2)  
*Pleistophora* Gurley (10)  
*Trachipleistophora* Hollister, Canning, Weidner, Field, Kench & Marriott (3)

*Vavraia* Weiser (10)

***Spragueiidae*** Weissenberg emend. Tokarev & Issi

- Apotaspora* Sokolova & Overstreet (1)
- Inodosporus* Overstreet & Weidner (2)
- Microgemma* Ralphs & Matthews (6)
- Spraguea* Weissenberg (2)
- Potaspora* Casal, Matos, Teles-Grilo & Azevedo (3)
- Pseudokabatana* Liu, Stentiford, Voronin, Sato, Li & Zhang (1)
- Tetramicra* Matthews & Matthews (1)

***Thelohaniidae*** Hazard & Oldacre emend. Tokarev & Issi

- Bohuslavia* Larsson (1)
- Chapmanium* Hazard & Oldacre (4)
- Coccospora* Wallr. (1)
- Cucumispora* Ovcharenko, Bacela, Wilkinson, Ironside, Rigaud & Wattier (2)
- Hyperspora* Stentiford, Ramilo, Abollo, Kerr, Bateman, Feist, Bass & Villalba (1)
- Napamichum* Larsson (3)
- Nudispora* Larsson (1)
- Octotetraspora* Issi, Kadyrova, Pushkar, Khodzhaeva & Krylova (1)
- Ormieresia* Vivarès, Bouix & Manier (1)
- Orthothelohania* Codreanu & Codreanu-Balcescu (1)
- Paradoxium* Stentiford, Ross, Kerr, Bass & Bateman (1)
- Pegmatheca* Hazard & Oldacre (2)
- Resiomeria* Larsson (1)
- Spherospora* Garcia (1)
- Thelohania* Henneguy (50)

***Unikaryonidae*** Sprague emend. Tokarev & Issi

- Canningia* Weiser, Wegensteiner & Žižka (2)
- Dictyocoela* Terry, Smith, Sharpe, Rigaud, Littlewood, Ironside, Rollinson, Bouchon, MacNeil, Dick & Dunn (8)
- Larssoniella* Weiser & David (2)
- Unikaryon* Canning, Lai & Lie (18)

***Glugeida*** genus *incertae sedis*

- Triwangia* Wang, Nai, Chih Wang, Solter, Hsu, Wang & Lo (1)

***Nosematida*** Labbe emend. Tokarev & Issi

***Encephalitozoonidae*** Voronin

- Encephalitozoon* Levaditi, Nicolau & Schoen (12)
- Mockfordia* Sokolova, Sokolov & C.E. Carlton (1)

***Enterocytozoonidae*** Cali & Owen emend. Tokarev & Issi

- Desmozoon* Freeman & Sommerville (3)
- Enterocytozoon* Desportes, Le Charpentier, Galian, Bernard, Cochand-Priollet, Lavergne, Ravisse & Modigliani (2)
- Enterospora* Stentiford, Bateman, Longshaw & Feist (2)
- Hepatospora* Stentiford, Bateman, Dubuffet, Chambers & Stone (1)
- Nucleospora* Hedrick, Groff & Baxa (3)
- Obruspora* Diamant, Rothman, Goren, Galil, Yokes, Szitenberg & Huchon (1)

***Heterovesiculidae*** Lange, Macvean, Henry & Streett

*Heterovesicula* Lange, Macvean, Henry & Streett (1)

***Mrazekiidae*** Léger & Hesse emend. Tokarev & Issi

*Agmasoma* Hazard & Oldacre (3)

*Anostracospora* Rode, Landes, Lievens, Flaven, Segard, Jabbour-Zahab, Michalakis, Agnew, Vivarés & Lenormand (1)

*Euplotespora* Fokin, Di Giuseppe, Erra & Dini (1)

*Helmichia* Larsson (5)

*Hrabyeia* Lom & Dyková (1)

*Jirovecia* Weiser (7)

*Mrazekia* Léger & Hesse (17)

*Rectispora* Larsson (1)

***Nosematidae*** Tokarev, Huang, Solter, Malysh, Becnel & Vossbrinck

*Nosema* Nägeli (20)

*Vairimorpha* Pilley (15)

***Ordosporidae*** Larsson, Ebert & Vávra

*Ordospora* Larsson, Ebert & Vávra (2)

***Nosematida*** genera *incertae sedis*

*Alternosema* Lipa, Tokarev, Issi (1)

*Anisofilariata* Tokarev, Voronin, Seliverstova, Dolgikh, Pavlova, Ignatieva & Issi (1)

*Crispospora* Tokarev, Voronin, Seliverstova, Pavlova & Issi (1)

*Cystosporogenes* Canning, Barker, Nicholas & Page (4)

*Endoreticulatus* Brooks, Becnel & Kennedy (5)

*Enterocytopora* Rode, Landes, Lievens, Flaven, Segard, Jabbour-Zahab, Michalakis, Agnew, Vivarés & Lenormand (1)

*Enteropsectra* Zhang, Sachse, Prevost, Luallen, Troemel & Felix (2)

*Glugoides* Larsson, Ebert, Vávra & Voronin (1)

*Liebermannia* Sokolova, Lange & Fuxa (3)

*Orthosomella* Canning, Wigley & Barker (2)

*Pancytopora* Zhang, Sachse, Prevost, Luallen, Troemel & Felix (2)

*Parahepatospora* Bojko, Clark, Bass, Dunn, Stewart-Clark, Stebbing & Stentiford (1)

*Percutemincola* Nishikori, Setiamarga, Tanji, Kuroda, Shiraishi & Okashi-Kobayashi (1)

*Sporanauta* Ardila-Garcia & Fast (1)

*Vittaforma* Silveira & Canning (1)

***Microsporidia*** families *incertae sedis*

***Abelsporidae*** Azevedo

*Abelspora* Azevedo (1)

***Areosporiidae*** Stentiford, Bateman, Feist, Oyarzún, Uribe, Palacios & Stone

*Areospora* Stentiford, Bateman, Feist, Oyarzún, Uribe, Palacios & Stone (1)

***Burenellidae*** Jouvenaz & Hazard

*Burenella* Jouvenaz & Hazard (1)

*Pilosporella* Hazard & Oldacre (2)

*Tabanispora* Bykova, Sokolova & Issi (2)

***Cougourdellidae*** Poisson

- Cougourdella* Hesse (7)
- Cylindrosporidae*** Issi & Voronin  
*Cylindrospora* Issi & Voronin (2)
- Duboscqiidae*** R. Sprague  
*Duboscqia* Pérez (11)  
*Mitoplastophora* Codreanu (1)  
*Pulicispora* Vedmed, Krylova & Issi (1)  
*Tardivesicula* Larsson & Bylén (1)  
*Trichoduboscqia* Léger (1)
- Golbergiidae*** Issi  
*Golbergia* Weiser (1)  
*Krishtalia* Kilochitskii (1)  
*Simuliospora* Khodzhaeva, Krylova & Issi (2)
- Microfilidae*** Sprague, Becnel & Hazard  
*Microfilum* Faye, Toguebaye & Bouix (1)
- Neonosemoidiidae*** Faye, Toguebaye & Bouix  
*Neonosemoides* Faye & Toguebaye (4)
- Pleistosporidiidae*** Codreanu-Balcescu & Codreanu  
*Pleistosporidium* Codreanu-Balcescu & Codreanu (1)
- Pseudopleistophoridae*** Sprague  
*Pseudopleistophora* Sprague (1)  
*Steinhausia* Sprague, Ormières & Manier (4)
- Striatosporidae*** Issi & Voronin  
*Striatospora* Issi & Voronin (1)
- Telomyxidae*** Léger & Hesse  
*Telomyxa* Léger & Hesse (4)
- Toxoglugeidae*** Larsson  
*Toxoglugea* Léger & Hesse (15)  
*Toxospora* Voronin (2)
- Tuzetiidae*** Sprague, Tuzet & Maurand  
*Nelliemelba* Larsson (1)  
*Pankovaia* Simakova, Tokarev & Issi (1)  
*Paratuzetia* Poddubnaya, Tokarev & Issi (1)  
*Tuzetia* Maurand, Fize, Vernick & Michel (7)
- Microsporidia*** genera *incertae sedis*  
*Auraspora* Weiser & Purrini (1)  
*Baculea* Loubès & Akbarieh (1)  
*Burkea* Sprague (2)  
*Chytridioides* Tregouboff (1)  
*Ciliatosporidium* Foissner & Foissner (1)



*Cryptosporina* Hazard & Oldacre (1)  
*Evlachovaia* Voronin (1)  
*Geusia* Rühl & Korn (1)  
*Gurleyides* Voronin (1)  
*Hamiltosporidium* Haag, Larsson, Refardt & Ebert (2)  
*Hirsutosporos* Batson (1)  
*Holobispora* Voronin (1)  
*Issia* Weiser (3)  
*Kinorhynchospora* Adrianov & Rybakov (1)  
*Mariona* Stempell (1)  
*Merocinta* Pell & Canning (1)  
*Microsporidium* Balbiani (120)#  
*Myxocystis* Mrazek (1)  
*Nematocenator* Sapir, Dillman, Connon, Grupe, Ingels, Mundo-Ocampo, Levin, Bladwin, Orphan & Sternberg (1)  
*Nosemoides* Vinckier (5)  
*Pyrotheca* Hesse (4)  
*Spiroglugea* Léger & Hesse (1)  
*Stempellia* Léger & Hesse (19)  
*Wittmannia* Czaker (1)

***Rozellomycota* orders *incertae sedis***

***Chytridiopsidea* Weiser**

***Buxtehudidae* Larsson**

*Jiroveciana* Larsson (1)  
*Buxtehudea* Larsson (1)

***Chytridiopsidae* Sprague, Ormières & Manier**

*Acarispora* Radek and Alberti (1)  
*Chytridiopsis* Schneider (11)  
*Intexta* Larsson, Steiner & Bjørnson (1)  
*Nolleria* Beard, Butler & Becnel (1)  
*Sheriffia* Larsson (1)

***Hesseidae* Ormières & Sprague**

*Hessea* Ormières & Sprague (1)

***Rozellomycota* genera *incertae sedis***

*Mitosporidium* Haag, James, Pombert, Larsson, Schaer, Refardt & Ebert (2)  
*Morellospora* Corsaro, Walochnik, Venditti, Hauröder & Michel (1)  
*Nucleophaga* Dangeard (2)  
*Paramicrosporidium* Corsaro, Walochnik, Venditti, Steinmann, Müller & Michel (1)  
*Rozella* Cornu (20)

#*Microsporidium* is a collective genus which incorporate species with uncertain genus allocation

***Zoopagomycota* Gryganskyi, M.E. Sm., Spatafora & Stajich**

***Zoopagomycetes* Doweld**

***Zoopagales* Bessey ex R.K. Benj.**

***Cochlonemataceae* Dudd.**

*Aenigmatomyces* R. F. Castañeda & W.B. Kendr. (1)  
*Amoebophilus* P.A. Dang. (4)

*Aplectosoma* Drechsler (1)  
*Bdellospora* Drechsler (1)  
*Cochlonema* Drechsler (11)  
*Endocochlus* Drechsler (4)  
*Euryancale* Drechsler (4)

***Helicocephalidaceae*** Boedijn

*Brachymyces* G.L. Barron (1)  
*Helicocephalum* Thaxt. (6)  
*Rhopalomyces* Corda (11)  
*Verrucocephalum* Degawa (1)

***Piptocephalidaceae*** J. Schröt.

*Kuzuhaea* R.K. Benj. (1)  
*Piptocephalis* de Bary (ca. 25)  
*Syncephalis* Tiegh. & G. Le Monn. (ca. 55)

***Sigmoideomycetaceae*** Benny, R.K. Benj. & P.M. Kirk

*Reticulocephalis* Benny, R.K. Benj. & P.M. Kirk (2)  
*Sigmoideomyces* Thaxt. (1)  
*Sphondylocephalum* Stalpers (1)  
*Thamnocephalis* Blakeslee (3)

***Zoopagaceae*** Drechsler

*Acaulopage* Drechsler (27)  
*Cystopage* Drechsler (9)  
*Lecophagus* M.W. Dick (2)  
*Stylopage* Drechsler (17)  
*Tentaculophagus* Doweld (1)  
*Zoopage* Drechsler (11)  
*Zoophagus* Sommerst. (4)

***Zoopagales*** genus *incertae sedis*

*Massartia* De Wild. (1)

***Zoopagomycotina*** genus *incertae sedis*

*Basidiolum* Cienk. (1)

**Outline of Fossil fungi**

The legitimate fungal genera known so far are listed below (with number of species in each genus in brackets). Here we list genera based on Saccardoan System (Table 4), fossil fungal sporophores, mycelia and other fungal remains (Table 5) and modern fungal genera to which fossil species have been assigned (Table 6).

**Table 4** Fossil fungal spores (according to Saccardoan System).

Fungi	Family	Genera
<b>Imperfecti</b>		
	<i>Amerosporae</i>	<i>Asyregraamspora</i> Locq. & Sal.-Cheb. (1) <i>Basidiosporites</i> Elsik (4)* <i>Biporipsilonites</i> Kalgutkar & Janson. (11)*

**Table 4** Continued.

<b>Fungi Imperfecti</b>	<b>Family</b>	<b>Genera</b>
		<i>Biporisporites</i> Ke & Shi (2) <i>Cervichlamydospora</i> R. Kar, Mand. & R.K. Kar (1) <i>Diporisporites</i> Hammen (ca. 34)* <i>Dremuspora</i> Sal.-Cheb. & Locq. (1) <i>Exesisporites</i> Elsik (4)* <i>Foliopollenites</i> Sierotin (3) <i>Foveodiporites</i> C.P. Varma & Rawat (11)* <i>Fusidiporosporonites</i> Z.C. Song (1) <i>Geotrichites</i> Stubblef., C.E. Mill., T.N. Taylor & G.T. Cole (1) <i>Graphiolites</i> Fritel (1) <i>Haplographites</i> Félix(2) <i>Hypoxylonites</i> Elsik (ca. 60)* <i>Inapertisporites</i> Hammen (ca. 67)* <i>Incertisporites</i> Hammen (1) <i>Lacrimasporonites</i> R.T. Clarke (9) <i>Magnosporites</i> Rouse (1) <i>Microsporonites</i> R.K. Jain (2) <i>Monoporisporites</i> Hammen (ca. 58) <i>Nigrosporites</i> Debi Mukh. (1) <i>Palaeoamphisphaerella</i> Ramanujam & Srisailam (3)* <i>Palaeopericonia</i> C.G. Ibañez & Zamuner (1)* <i>Portalites</i> Hemer & Nygreen (1) <i>Psiamspora</i> Locq. & Sal.-Cheb. in Sal.-Cheb. & Locq. (2) <i>Retidiporites</i> C.P. Varma & Rawat (1)
		<i>Saccisporonites</i> Kalgutkar & Janson. (1) <i>Spirotremesporites</i> Dueñas (ca. 20)* <i>Sporotrichites</i> Göpp. & Berendt (3) <i>Striadiporites</i> C.P. Varma & Rawat (14)* <i>Trichosporites</i> Félix (1) <i>Triporisporites</i> Hammen (1) <i>Uncinulites</i> Pampal. (3)* <i>Xylariasporites</i> Debi Mukh. (1) <i>Xylohyphites</i> Kalgutkar & Sigler (1)
	<b><i>Didymosporae</i></b>	<i>Ampulliferinites</i> Kalgutkar & Sigler (1) <i>Cladosporites</i> Félix (3)* <i>Dicellaeporisporites</i> Kalgutkar (3) <i>Dicellaesporites</i> Elsik (ca. 58) <i>Didymoporisporonites</i> Sheffy & Dilcher (ca. 25) <i>Didymosporonites</i> Sal.-Cheb. & Locq. (1) <i>Dyadosporites</i> Hammen ex R.T. Clarke (ca. 41)* <i>Felixites</i> Elsik ex Janson. & Hills (2) <i>Fusiformisporites</i> Rouse (21)* <i>Hilidicellites</i> Kalgutkar & Janson. (21)*
	<b><i>Phragmosporae</i></b>	<i>Alleppeysporonites</i> Ramanujam & K.P. Rao (1)* <i>Anatolinites</i> Elsik, V.S. Ediger & Bati (13)* <i>Axisporonites</i> Kalgutkar & Janson. (1)* <i>Brachysporisporites</i> R.T. Lange & P.H. Sm. (23)* <i>Ceratohirudispora</i> R. Kar, Mand. & R.K. Kar (2) <i>Cercosporites</i> E.S. Salmon (3)* <i>Chaetosphaerites</i> Félix (4)* <i>Chordecystia</i> C.B. Foster (1) <i>Circinoconites</i> R. Kar, Mand. & R.K. Kar (1) <i>Cladosporiumsporinites</i> Debi Mukh. (1) <i>Diporicellaesporites</i> Elsik (ca. 61) <i>Diporipollis</i> S.K. Dutta & S.C.D. Sah emend. Kalgutkar & Janson. (2)

**Table 4** Continued.

<b>Fungi Imperfecti</b>	<b>Family</b>	<b>Genera</b>
		<i>Dwayabeejaesporonites</i> Debi Mukh. (1) <i>Edmundmasonaesporites</i> Debi Mukh. (1) <i>Foveoletisporonites</i> Ramanujam & K.P. Rao (3) <i>Fractisporonites</i> R.T. Clarke (9) <i>Heterocystinella</i> Cookson & Eisenack (1) <i>Jansoniisporites</i> Kalgutkar (1) <i>Kumarisporites</i> Kalgutkar & Janson. (1)* <i>Mathurisporites</i> Kalgutkar & Janson. (2)* <i>Monilites</i> Pampal. (1) <i>Multicellaesporites</i> Elsik emend. P. Kumar (ca. 14) <i>Multicellites</i> Kalgutkar & Janson. (48) <i>Ornasporonites</i> Ramanujam & K.P. Rao (1)* <i>Paragranatisporites</i> Zhong Y. Zhang (5) <i>Phialophoronites</i> Debi Mukh. (1) <i>Pluricellaesporites</i> Hammen (ca. 72)* <i>Quilonia</i> K.P. Jain & R.C. Gupta emend. Kalgutkar & Janson. (11) <i>Ramasricellites</i> Kalgutkar & Janson. (2)* <i>Reduviasporonites</i> L.R. Wilson (9) <i>Reticellites</i> D.L.E. Glass, D.D. Br. & Elsik (1) <i>Scolecospores</i> R.T. Lange & P.H. Sm. (4) <i>Tripithonites</i> Sat. K. Srivastava & Al-Tayyar (2) <i>Tympanicysta</i> Malme (1) <i>Varmasporites</i> Kalgutkar & Janson. (1)*
	<b><i>Dictyosporae</i></b>	<i>Centonites</i> Peppers (1) <i>Ctenosporites</i> Elsik & Janson. (3) <i>Dictyosporites</i> Félix emend. Kalgutkar & Janson. (ca. 20) <i>Dictyostromata</i> R. Kar, Mand. & R.K. Kar (2) <i>Kutchiathyrites</i> R.K. Kar emend. Kalgutkar & Janson. (7)* <i>Lirasporis</i> R. Potonié & S.C.D. Sah (3) <i>Octosporites</i> Sal.-Cheb. & Locq. (1) <i>Palambages</i> Wetzell (3) <i>Papulosporonites</i> Schmied. & G. Schwab (7)* <i>Polyadosporites</i> Hammen (ca. 9) <i>Polycellaesporonites</i> Anil Chandra, R.K. Saxena & Setty (7)* <i>Staphlosporonites</i> Sheffy & Dilcher (c.21)*
	<b><i>Helicosporae</i></b>	<i>Colligerites</i> K.P. Jain & R.K. Kar (3)* <i>Elsikisporonites</i> P. Kumar (1) <i>Helicominites</i> Barlinge & Paradkar (1) <i>Helicoönites</i> Kalgutkar & Sigler (1) <i>Helicosporiates</i> Kalgutkar & Sigler (1) <i>Involutisporonites</i> R.T. Clarke (ca. 8) <i>Palaeocirrenalia</i> Ramanujam & Srisailam (3) <i>Paleoslimacomycetes</i> Kalgutkar & Sigler (3)* <i>Retihelicosporonites</i> Ramanujam & K.P. Rao (1)*
	<b><i>Staurosporae</i></b>	<i>Eoglobella</i> W.H. Bradley (1) <i>Frasnacritetrus</i> Taug. (7)* <i>Mossopisporites</i> Kalgutkar & Janson. (1)* <i>Pesavis</i> Elsik & Janson. (3) <i>Spegazzinites</i> Félix (3) <i>Tribolites</i> W.H. Bradley (2)* <i>Trihyphites</i> Kalgutkar & Janson. (1)* <i>Triporicellaesporites</i> Ke & Shi (4)*

**Table 5** Fossil fungal fructifications, mycelia and other fungal remains.

<b>Phylum</b>	<b>Order</b>	<b>Genera</b>	
<i>Ascomycota</i>	<i>Botryosphaeriales</i>	<i>Guignardiocarpites</i> Debi Mukh. (1)	
	<i>Capnodiales</i>	<i>Mycosphaerellascoideetes</i> Debi Mukh. (1)	
	<i>Dothideales</i>	<i>Cucurbitariaceites</i> R.K. Kar, R.Y. Singh & S.C.D. Sah (2)*	
		<i>Leptosphaerites</i> Richon (2)	
		<i>Palaeoleptosphaeria</i> Barlinge & Paradkar (1)	
		<i>Perisporiacites</i> Félix (4)	
		<i>Erysiphales</i>	<i>Erisiphites</i> Pampal. (1)
	<i>Eurotiales</i>	<i>Meliolinites</i> Selkirk (9)	
		<i>Meliostroma</i> R. Kar, Mand. & R.K. Kar (1)	
		<i>Palaeosclerotium</i> G.W. Rothwell (1)*	
		<i>Perisporites</i> Pampal. (2)	
		<i>Coleocarpon</i> Stubblef., T.N. Taylor, C.E. Miller & G.T. Cole (1)	
		<i>Cryptocolax</i> R.A. Scott (2)	
		<i>Memnonillasporonites</i> Debi Mukh. (1)	
	<i>Hysteriales</i>	<i>Mycocarpon</i> S.A. Hutch. (7)*	
		<i>Roannaisia</i> T.N. Taylor, Galtier & Axsmith (1)	
		<i>Sporocarpon</i> Will. (13)*	
		<i>Traquairia</i> Carruth. ex Scott (4)	
		<i>Hysterites</i> Unger (16)	
		<i>Microthyriales</i>	<i>Appendicisporonites</i> R.K. Saxena & S. Khare (1)
			<i>Asterinites</i> Doub. & D. Pons ex Kalgutkar & Janson. (2)
			<i>Asterothyrites</i> Cookson (16)
			<i>Brefeldiellites</i> Dilcher (2)
			<i>Caldesites</i> Puri (1)
			<i>Callimothallus</i> Dilcher (11)
			<i>Cribrites</i> R.T. Lange (1)
			<i>Dictyotopileos</i> Dilcher (1)
			<i>Euthythyrites</i> Cookson (4)
			<i>Haplopeltis</i> Theiss. (5)
			<i>Kalviwadithyrites</i> M.R. Rao (1)
			<i>Koshalia</i> S. Sarkar & V. Prasad (1)
			<i>Mariusia</i> D. Pons & Boureau (1)
			<i>Melanosporites</i> Pampal. (1)
	<i>Microthyriacites</i> Cookson (19)		
	<i>Microthyrites</i> Pampal. (1)		
	<i>Molinaea</i> Doub. & D. Pons (1)		
	<i>Palmellathyrites</i> Locq., D. Pons & Sal.-Cheb. (1)		
	<i>Parmathyrites</i> K.P. Jain & R.C. Gupta (5)		
	<i>Pelicothallos</i> Dilcher (1)		
	<i>Phragmothyrites</i> W.N. Edwards (24)*		
	<i>Plochmopeltinites</i> Cookson (3)		
	<i>Polyhyphaethyrites</i> R. Srivast. & R.K. Kar (1)		
	<i>Ratnagiriathyrites</i> R.K. Saxena & N.K. Misra (1)*		
	<i>Spinosporonites</i> R.K. Saxena & S. Khare (1)*		
	<i>Stomiopeltites</i> Alvin & M.D. Muir (3)		
	<i>Trichopeltinites</i> Cookson (5)		
	<i>Trichothyrites</i> Rosend. (13)*		
<i>Ussurithyrites</i> Krassilov (1)			
<i>Patellariales</i>	<i>Rhytidhysteriumites</i> Debi Mukh. (1)		
<i>Pezizales</i>	<i>Ascodesmisites</i> Trivedi, Chaturv. & C.L. Verma (1)\		
	<i>Paleomorchella</i> Poinar (1)		
	<i>Pezizites</i> Göpp. & Berendt (4)		
<i>Phyllachorales</i>	<i>Paleoserenomyces</i> Currah, Stockey & B.A. LePage (1)		
<i>Pleosporales</i>	<i>Cryptodidymosphaerites</i> Currah, Stockey & B.A. LePage (1)*		
	<i>Dictyosporiuminities</i> Debi Mukh. (1)		
	<i>Pleosporites</i> Y. Suzuki (1)		

Table 5 Continued.

Phylum	Order	Genera
<b>Basidiomycota</b>	<b>Sphaeriales</b>	<i>Diploneurospora</i> K.P. Jain & R.C. Gupta (1)* <i>Palaeosordaria</i> Sahni & H.S. Rao (1) <i>Petrosphaeria</i> Stopes & H. Fujii (1) <i>Valsarites</i> Puri (1)
	<b>Uredinales</b>	<i>Aeciosporonites</i> Debi Mukh. (1)
	<b>Xylariales.</b>	<i>Chaethomites</i> Pampal. (1) <i>Sphaerites</i> Unger (48)
	<b>Incertae sedis</b>	<i>Cephalothecoidomyces</i> G. Worobiec, Neumann & E. Worobiec (1)
	<b>Agaricales.</b>	<i>Archaeomarasmium</i> Hibbett, D. Grimaldi & Donoghue (1) <i>Coprinites</i> Poinar & Singer (1)* <i>Gondwanagaricites</i> Heads, A.N. Mill & J.L. Crane (1) <i>Protomyцена</i> Hibbett, D. Grimaldi & Donoghue (1)
	<b>Polyporales.</b>	<i>Eopolyporoides</i> Rigby (1) <i>Phellinites</i> Singer & S. Archang. (1) <i>Pseudopolyporus</i> Hollick (1) <i>Trametites</i> A. Straus (3)
	<b>Pucciniales.</b>	<i>Shuklania</i> J.N. Dwivedi (1)
	<b>Sphaeropsidales</b>	<i>Arcephoma</i> Kyoto Watanabe, H. Nishida & Tak. Kobay. (1) <i>Ascochyrites</i> Barlinge & Paradkar (2)* <i>Deccanodia</i> Singhai (1) <i>Diplodites</i> D.N. Babajan & Tasl. ex Kalgutkar, Nambudiri & Tidwell (5)* <i>Entopeltacites</i> Selkirk (6) <i>Meniscoideisporites</i> Kyoto Watanabe, H. Nishida & Tak. Kobay. (1) <i>Mohgaonidium</i> Singhai (1) <i>Palaeocytophaera</i> R.B. Singh & G.V. Patil (1) <i>Palaeophoma</i> Singhai (1)* <i>Phomites</i> Fritel (2) <i>Rabenhorstinidium</i> R.B. Singh & G.V. Patil (1)
	<b>Uredinales</b>	<i>Aecidites</i> Debey & Ettingsh. (4) <i>Aeciosporonites</i> Debi Mukh. (1) <i>Hapalophragmites</i> Ramanujam & Ramachar (1) <i>Milesites</i> Ramanujam & Ramachar (1) <i>Pucciniasporonites</i> Ramanujam & Ramachar (1)
	<b>Ustilaginales</b>	<i>Chlamydosporites</i> Paradkar (1) <i>Teliosporites</i> R. Kar, Mand. & R.K. Kar (2)
	<b>Chytridiomycota</b>	<b>Chytridiales</b> <i>Grilletia</i> Renault & C.E. Bertrand (1) <i>Guizhounema</i> X. Mu (1) <i>Krispiromyces</i> T.N. Taylor, Hass & W. Remy (1) <i>Lyonomyces</i> T.N. Taylor, Hass & W. (1) <i>Milleromyces</i> T.N. Taylor, Hass & W. Remy (1) <i>Oochytrium</i> Renault (1)
	<b>Mucoromycota</b>	<b>Endogonales</b> <i>Chlamydospora</i> R. Kar, Mand. & R.K. Kar (1) <i>Endochaetophora</i> J.F. White & T.N. Taylor (1) <i>Gigasporites</i> Carlie J. Phipps & T.N. Taylor (1) <i>Palaeogigaspora</i> R. Kar, Mand. & R.K. Kar (1) <i>Palaeomycites</i> Mesch. (21)* <i>Udaria</i> A. Gupta (2) <i>Lithomucorites</i> R. Kar, Mand. & R.K. Kar (2)
	<b>Mucoromycota</b> genera incertae sedis	
	<b>Mycelia Sterilia</b>	<i>Animikiea</i> Bargh. (1) <i>Archaeorestis</i> Bargh. (1) <i>Celyphus</i> Batten (1) <i>Dendromyceliates</i> K.P. Jain & R.K. Kar (2) <i>Entosphaeroides</i> Bargh. (1)

**Table 5** Continued.

Phylum	Order	Genera
<b>Fossil fungi</b> <i>incertae sedis</i>		<i>Eoastrion</i> Bargh. (2)
		<i>Eomycetopsis</i> J.W. Schopf (2)
		<i>Fungites</i> Hallier (7)
		<i>Gunflintia</i> Bargh. (2)
		<i>Laevitubulus</i> N.D. Burgess & D. Edwards (5)
		<i>Ornatifilum</i> N.D. Burgess & D. Edwards (2)
		<i>Palaeancistrus</i> R.L. Dennis (1)
		<i>Palaeofibulus</i> J.M. Osborn, T.N. Taylor & J.F. White (1)
		<i>Sclerotites</i> A. Massal. (16)
		<i>Tormentella</i> H.D. Pflug (2)
		<i>Annella</i> Sat. K. Srivast. (2)
		<i>Caenomyces</i> E.W. Berry ( <i>Pyrenomycetes</i> Schwein?) (1)
		<i>Dictyomykus</i> R. Kar, Mand. & R.K. Kar (1)
		<i>Lithosporocarpia</i> R. Kar, Mand. & R.K. Kar (1)
		<i>Mycokidstonia</i> D. Pons & Locq. (1)
		<i>Mycozygosporangia</i> R. Kar, Mand. & R.K. Kar (1)
		<i>Netothyrites</i> C.M. Misra, S.N. Swamy, B. Prasad, B.S. Pundeer, R.S. Rawat & K. Singh (2)
		<i>Palaeocercospora</i> S. Mitra and Manju Banerjee (1)
		<i>Palaeocolletotrichum</i> S. Mitra and Manju Banerjee (1)
		<i>Paleoblastocladia</i> W. Remy, T.N. Taylor & Hass (1)
		<i>Palynomorphites</i> L.R. Moore (1)
		<i>Pilula</i> Harker, Sarjeant & Caldwell ex Harker & Sarjeant (2)
		<i>Protoascon</i> L.R. Batra, Segal & R.W. Baxter (1)
		<i>Protocolletotrichum</i> R. Kar, Mand. & R.K. Kar (1)
		<i>Reymanella</i> Marcink. (1)
		<i>Sorosporonites</i> X. Mu (1)
		<i>Stauromyca</i> R. Kar, Mand. & R.K. Kar (1)
	<i>Tetradigita</i> R. Kar, Mand. & R.K. Kar (1)	
	<i>Tricellaesporonites</i> Sheffy & Dilcher (3)	

**Table 6** Modern fungal genera to which fossil species have been assigned.

Phylum	Order	Family	Modern genera	Fossil species
<i>Ascomycota</i>	<i>Asterinales</i>	<i>Asterinaceae</i>	<i>Asterina</i> Lév.	<i>A. eocenica</i> Dilcher, <i>A. kosciuskensis</i> Selkirk, <i>A. nodosaria</i> Dilcher, <i>A. indodeightonii</i> Vishnu, Khan & Bera, <i>A. mioconsobrina</i> Vishnu, Khan & Bera, <i>A. miosphaerelloides</i> Vishnu, Khan & Bera, <i>A. neocombreticola</i> Vishnu, Khan & Bera, <i>A. neolaeocarpi</i> Vishnu, Khan & Bera, <i>A. presaracae</i> Vishnu, Khan & Bera <i>D. rodei</i> Mahab. [Now: <i>Diplodites rodei</i> (Mahab.) Kalgutkar, Nambudiri & Tidwell], <i>D. sahnii</i> Singhai [Now: <i>Diplodites sahnii</i> (Singhai) Kalgutkar, Nambudiri & Tidwell]
	<i>Botryosphaeriales</i>			

Table 6 Continued.

Phylum	Order	Family	Modern genera	Fossil species
	<i>Capnodiales</i>	<i>Mycosphaerellaceae</i>	<i>Ramularia</i> Sacc.	<i>R. oblongispora</i> Casp.
	<i>Chaetosphaeriales</i>	<i>Chaetosphaeriaceae</i>	<i>Chaetosphaeria</i> Tul. & C. Tul.	<i>C. elsikii</i> M.J. Pound, J.M.K. O'Keefe, N.B. Nuñez Otaño, J.B. Riding
	<i>Eurotiales</i>	<i>Aspergillaceae</i>	<i>Penicillium</i> Link	<i>P. curtipes</i> Berk.
	<i>Helotiales</i>	<i>Mollisiaceae</i>	<i>Trimmatostroma</i> Corda.	<i>Trimmatostroma intertrappea</i> K.S. Patil & Datar
	<i>Hypocreales</i>	<i>Bionectriaceae</i>	<i>Acremonium</i> Link	<i>A. succineum</i> Casp.
		<i>Ceratostomataceae</i>	<i>Gonatobotrys</i> Corda	<i>G. primigenius</i> Casp.
	<i>Laboulbeniales</i>	<i>Laboulbeniaceae</i>	<i>Stigmatomyces</i> H. Karst.	<i>Stigmatomyces succini</i> W. Rossi, Kotrba & Triebel
	<i>Lecanorales</i>	<i>Sphaerophoraceae</i>	<i>Sphaerophorus</i> Pers.	<i>S. moniliformis</i> Menge
	<i>Meliolales</i>	<i>Meliolaceae</i>	<i>Meliola</i> Fr.	<i>M. anfracta</i> Dilcher [Now: <i>Meliolinites anfractus</i> (Dilcher) Kalgutkar & Janson.], <i>M. spinksii</i> Dilcher [Now: <i>Meliolinites spinksii</i> (Dilcher) Selkirk]
	<i>Microthyriales</i>	<i>Microthyriaceae</i>	<i>Trichopeltina</i> Theiss.	<i>T. exporrecta</i> Dilcher
	<i>Mycocaliciales</i>	<i>Mycocaliciaceae</i>	<i>Chaenothecopsis</i> Vain.	<i>C. bitterfeldensis</i> Rikkinen & Poinar
	<i>Pleosporales</i>	<i>Didymellaceae</i>	<i>Epicoccum</i> Link	<i>E. deccanense</i> R. Srivast., Kapgate & S. Chatterjee
		<i>Pleosporaceae</i>	<i>Alternaria</i> Nees ex Fr.	<i>A. malayensis</i> Trivedi & C.L. Verma [Now: <i>Pluricellaesporites malayensis</i> (Trivedi & C.L. Verma) Kalgutkar & Janson.]
		<i>Torulaceae</i>	<i>Torula</i> Pers. ex Fr.	<i>T. globulifera</i> Casp., <i>T. heteromorpha</i> Casp., <i>T. mingeana</i> Casp. & R. Klebs in Casp.
	<i>Sporidesmiales</i>	<i>Sporidesmiaceae</i>	<i>Sporidesmium</i> Link ex Fr.	<i>S. henryense</i> Dilcher
	<i>Taphrinales</i>	<i>Protomycetaceae</i>	<i>Protomyces</i> Unger	<i>P. protogenes</i> W. Sm.
	<i>Trichosphaeriales</i>	<i>Trichosphaeriaceae</i>	<i>Brachysporium</i> Sacc.	<i>B. minutum</i> Trivedi & C.L. Verma [Now: <i>Pluricellaesporites minutus</i> (Trivedi & C.L. Verma) ex Kalgutkar & Janson.]
	<i>Dothideomycetes</i> family <i>incertae</i> <i>sedis</i>	<i>Vizellaceae</i>	<i>Vizella</i> Sacc.	<i>V. discontinua</i> Selkirk, <i>V. memorabilis</i> (Dilcher) Selkirk
	<i>Incertae sedis</i>	<i>Incertae sedis</i>	<i>Desmidiospora</i> Thaxt. <i>Manginula</i> G. Arnaud	<i>D. marginiconvoluta</i> Kalgutkar <i>M. maegdefraui</i> Lange [Now: <i>Entopeltacites maegdefraui</i> (Lange) Selkirk], <i>M. memorabilis</i>



Table 6 Continued.

Phylum	Order	Family	Modern genera	Fossil species
				(Dilcher) Lange [Now: <i>Vizella memorabilis</i> (Dilcher) Selkirk], <i>M. osbornii</i> Lange [Now: <i>Entopeltacites osbornii</i> (Lange) Selkirk]
			<i>Sarcophoma</i> Höhn.	<i>S. deccani</i> R.B. Singh & G.V. Patil
			<i>Tetracoccusporium</i> Szabó	<i>T. eocenium</i> Biradar & Mahab.
			<i>Monotosporella</i> S. Hughes	<i>M. doerfeltii</i> Sadowski, Beimforde, Gube & A.R. Schmidt
			<i>Rhexoampullifera</i> (M.B. Ellis) P.M. Kirk & C.M. Kirk	<i>R. stogieana</i> M.J. Pound, J.M.K. O'Keefe, N.B. Nuñez Otaño, J.B. Riding, <i>R. sufflata</i> M.J. Pound, J.M.K. O'Keefe, N.B. Nuñez Otaño, J.B. Riding
<i>Basidiomycota</i>	<i>Agaricostilbales</i>	<i>Chionosphaeraceae</i>	<i>Stilbum</i> Tode ex Fr.	<i>S. succini</i> Casp.
	<i>Boletales</i>	<i>Sclerodermataceae</i>	<i>Scleroderma</i> Pers.	<i>S. echinosporites</i> Rouse
	<i>Cantharellales</i>	<i>Hydnaceae</i>	<i>Hydnum</i> L. ex Fr.	<i>H. argillae</i> R. Ludw.
	<i>Geastrales</i>	<i>Geastraceae</i>	<i>Geastrum</i> Pers.	<i>G. tepexense</i> Magallon-Puebla & Cevallos-Ferriz
	<i>Nidulariales</i>	<i>Nidulariaceae</i>	<i>Nidula</i> V.S. White	<i>N. baltica</i> Poinar
	<i>Polyporales</i>	<i>Polyporaceae</i>	<i>Cyathus</i> Haller	<i>C. dominicanus</i> Poinar
	<i>Urocystidales</i>	<i>Urocystidaceae</i>	<i>Fomes</i> (Fr.) Fr.	<i>F. idahoensis</i> R.W. Br.
			<i>Mundkurella</i> Thirum.	<i>M. mohgaensis</i> Chitaley & Yawale
	<i>Ustilaginales</i>	<i>Ustilaginaceae</i>	<i>Ustilago</i> (Pers.) Roussel	<i>U. deccani</i> Chitaley & Yawale [Now: <i>Inapertisporites deccani</i> (Chitaley & Yawale) Kalgutkar & Janson.]
<i>Chytridiomycota</i>	<i>Chytridiales</i>	<i>Chytriomycetaceae</i>	<i>Entophlyctis</i> A. Fisch.	<i>E. willoughbyi</i> W.H. Bradley [Now: <i>Desmidiospora willoughbyi</i> (W.H. Bradley) D.L.E. Glass, D.D. Br. & Elsik]
<i>Fungi incertae sedis</i>			<i>Patoullardiella</i> Speg.	<i>P. imbricata</i> Dilcher

**Outline of fungus-like organisms**

**Obazoa** Brown et al.

**Opisthokonta** Cavalier-Smith

**Holomycota** Liu et al. = Nucletmycea Brown et al.

**Nucleariiae** Tedersoo et al.

**Fonticulida** Tedersoo et al.

**Fonticulea** Tedersoo et al.

**Fonticulida** Cavalier-Smith

**Fonticulidae** Worley, Raper & Hohl

*Fonticula* Worley, Raper & M. Hohl

Diaphoretickes Adl et al.  
S A R Burki et al. emend. Adl et al.  
**Rhizaria** Cavalier-Smith  
**Endomyxa** Cavalier-Smith  
**Phytomyxea** Engler & Prantl  
**Plasmodiophorida** Cook  
**Plasmodiophoridae** Loeblich & Tappan  
    *Ligniera* Maire & A. Tison  
    *Plasmodiophora* Worona  
    *Polymyxa* Ledingham  
    *Sorosphaerula* Neuh. & Kirchn.  
    *Spongospora* Brunch.  
    *Woronina* Cornu

**Phagomyxida** Cavalier-Smith  
**Phagomyxidae** Cavalier-Smith  
    *Maullinia* I. Maier, E.R. Parodi, Westermeier & D.G. Müll  
    *Phagomyxa* Karling

**Cercozoa** Cavalier-Smith  
**Sainouroidea** Schuler et al.  
**Guttulinopsidae** L.S. Olive  
    *Guttulinopsis* E.W. Olive

**Straminipila** M.W. Dick  
**Labyrinthulomycota** Whittaker  
**Labyrinthulomycetes** Dick  
**Labyrinthulales** E.A. Bessey  
**Aplanochytriaceae** Leander ex Cavalier-Smith  
    *Aplanochytrium* Bahnweg & Sparrow

**Stellarchytriaceae** Bennett et al. ad int.  
    *Stellarchytrium* FioRito & Leander

**Labyrinthulaceae** Haeckel  
    *Labyrinthula* Cienk.

**Oblongichytridiales** Bennett et al. ad int.  
**Oblongichytriaceae** Cavalier-Smith  
    *Oblongichytrium* R. Yokoy. & D. Honda

**Thraustochytriales** Sparrow  
**Althornidiaceae** Jones and Alderman  
    *Althornia* E.B.G. Jones & Alderman

**Thraustochytriaceae** Sparrow ex Cejp  
    *Aurantiochytrium* R. Yokoy. & D. Honda  
    *Botryochytrium* R. Yokoy., Salleh & D. Honda  
    *Japanochytrium*  
    *Monorhizochytrium* K. Doi & D. Honda  
    *Parietichytrium* R. Yokoy., Salleh & D. Honda  
    *Schizochytrium* S. Goldst. & Belsky ex Raghuk.

*Sicyoidochytrium* R. Yokoy., Salleh & D. Honda  
*Thraustochytrium* Sparrow  
*Ulkenia* A. Gaertn. ex M.W. Dick

***Amphitremida*** Gomaa et al.

***Amphitremidae*** Poch

*Amphitrema* Archer  
*Archerella* Loeblich & Tappan  
*Paramphitrema* Valkanov

***Diplophrydae*** Cavalier-Smith

*Diplophrys* J.S.F. Barker

***Amphifilida*** Cavalier-Smith

***Amphifilidae*** Cavalier-Smith

*Amphifila* Caval.-Sm.

***Sorodiplophryidae*** Cavalier-Smith

*Fibrophrys* Takahashi et al.  
*Sorodiplophrys* L.S. Olive & Dykstra

***Hyphochytriomycota*** Whittaker

***Hyphochytriomycetes*** Sparrow

***Hyphochytriales*** Bessey ex Sparrow

***Hyphochytriaceae*** Fischer

*Canteriomyces* Sparrow  
*Cystochytrium* Ivimey Cook  
*Hyphochytrium* Zopf

***Rhizidiomycetaceae*** Karling ex Kirk, Cannon & David

*Latrostium* Zopf  
*Reessia* Fisch  
*Rhizidiomyces* Zopf

***Oomycota*** Arx

***Peronosporomycetes*** M.W. Dick

***Albuginales*** Thines

***Albuginaceae*** Schroet.

*Albugo* (Pers.) Roussel (40)  
*Pustula* Thines (11)  
*Wilsoniana* Thines (5)

***Peronosporales*** A.N. Beketov

***Peronosporaceae*** de Bary

*Basidiophora* Roze & Cornu (3)  
*Baobabopsis* R.G. Shivas, Y.P. Tan, Telle & Thines (2)  
*Benua* Constant. (1)  
*Bremia* Regel (15)  
*Calycofera* R. Bennett & Thines (2)  
*Eraphthora* Telle & Thines (1)  
*Graminivora* Thines (1)  
*Halophytophthora* H.H. Ho & S.C. Jong (6)

*Hyaloperonospora* Constant. (35)  
*Nothophytophthora* T. Jung, Scanu, Bakonyi & M. Horta Jung (6)  
*Novotelnova* Voglmayr & Constant. (1)  
*Paraperonospora* Constant. (9)  
*Perofascia* Constant. (2)  
*Peronospora* Corda (350)  
*Peronosclerospora* (S. Ito) Hara (15)  
*Phytophthora* de Bary (150)  
*Phytopythium* Abad, de Cock, Bala, Robideau, A.M. Lodhi & Lévesque (25)  
*Plasmopara* J. Schröt. (150)  
*Plasmoverna* Constant., Voglmayr, Fatehi & Thines (7)  
*Poakatesthia* Thines (1)  
*Protobremia* Voglmayr, Riethm., Göker, Weiss & Oberw. (1)  
*Pseudoperonospora* Rostov. (9)  
*Sclerophthora* Thirum., C.G. Shaw & Naras. (5)  
*Sclerospora* J. Schröt. (2)  
*Viennotia* Göker, Voglmayr, Riethm., M. Weiss & Oberw. (1)

***Pythiaceae*** Schroet.

*Elongisporangium* Uzuhashi, Tojo & Kakish. (5)  
*Globisporangium* Uzuhashi, Tojo & Kakish. (70)  
*Lagen* Vanterp. & Ledingham (1)  
*Lagenidium* Schenk (40)  
*Myzocytiopsis* M.W. Dick (18)  
*Myzocytiium* Schenk (2)  
*Pilasporangium* (Uzuhashi & Tojo) Uzuhashi, Tojo & Kakish. (1)  
*Pythiogeton* Minden (16)  
*Pythium* Pringsh. (200)

***Salisapiliaceae***

*Salisapilia* Hulvey, Nigrelli, Telle, Lamour & Thines (9)

***Rhipidiales*** M.W. Dick

***Rhipidiaceae*** Cejp

*Aqualinderella* Emerson & Weston (1)  
*Araiospora* Thaxt. (4)  
*Mindeniella* Kanouse (2)  
*Nellymyces* A. Batko (1)  
*Rhipidium* Cornu (6)  
*Sapromyces* Fritsch (4)

***Salispinaceae*** R. Bennett & Thines

*Salispina* Marano, A.L. Jesus & Pires-Zottar. (4)

***Peronosporomycetes*** genera *incertae sedis*

*Kawakamia* Miyabe (4)  
*Paralagenidium* Grooters, C.F.J. Spies, de Cock & Lévesque (2)  
*Trachysphaera* Tabor & Bunting (1)

***Saprolegniomycetes*** Thines & Beakes

***Leptomitales*** Kanouse

***Atkinsiellaceae*** Sparrow

*Atkinsiella* Vishniac (1)  
*Bolbea* Buaya & Thines (1)

***Leptomitaceae* Kütz**

*Apodachlya* Pringsh. (5)  
*Apodachlyella* Indoh (1)  
*Blastulidium* Pérez (1)  
*Leptomitus* C. Agardh (11)

***Ectrogellaceae* Cejp**

*Crypticola* Humber, Frances & A.W. Sweeney (1)  
*Ectrogella* Zopf (8)  
*Lagenisma* Schnepf (1)

***Saprolegniales* K. Prantl**

***Achlyaceae* ined.**

*Achlya* Nees (80)  
*Brevilegnia* Coker & Couch (16)  
*Dictyuchus* Leitg. (9)  
*Thraustotheca* Humphrey (4)

***Saprolegniaceae* Warm.**

*Aplanopsis* Höhnk (1)  
*Calyptralegnia* Coker (3)  
*Couchia* W.W. Martin (3)  
*Isoachlya* Kauffmann (9)  
*Newbya* M.W. Dick & M.A. Spencer (13)  
*Protoachlya* Coker (7)  
*Pythiopsis* de Bary (7)  
*Saprolegnia* Nees (80)  
*Scoliolegnia* M.W. Dick (5)

***Verrucalvaceae* M.W. Dick**

*Aphanomyces* de Bary (40)  
*Aquastella* Glockling & D.P. Molloy (2)  
*Geolegnia* Coker (4)  
*Leptolegnia* de Bary (9)  
*Pachymetra* B.J. Croft & M.W. Dick (1)  
*Plectospora* Drechsler (4)  
*Verrucalvus* P. Wong & M.W. Dick (1)

***Saprolegniomycetes* genera *incertae sedis***

*Aphanomycopsis* Scherff. (6)  
*Brevilegniella* M.W. Dick (1)  
*Cornumyces* M.W. Dick (8)  
*Clamydomycium* M.W. Dick (7)  
*Ducellieria* Teiling (1)  
*Eurychasmopsis* Canter & M.W. Dick (1)  
*Leptolegniella* Huneycutt (7)  
*Nematophthora* Kerry & D.H. Crump (1)  
*Pythiella* Couch (3)  
*Sommerstorffia* Arnaudov (1)

*Synchaetophagus* Apstein (1)

**Oomycota** orders *incertae sedis*

**Anisolpidiales** M.W. Dick

**Anisolpidiaceae** Karling

*Anisolpidium* Karling (7)

**Diatomophthoraceae** Buaya & Thines

*Diatomophthora* Buaya & Thines (3)

**Eurychasmales** Sparrow

**Eurychasmataceae** Petersen

*Eurychasma* Magnus (3)

**Haliphthorales** ined.

**Haliphthoraceae** Vishniac

*Halioticida* Muraosa & Hatai (1)

*Halocrusticida* K. Nakam. & Hatai (7)

*Haliphthoros* Vishniac (3)

**Haptoglossales** M.W. Dick

**Haptoglossaceae** M.W. Dick

*Haptoglossa* Drechsler (12)

**Miraculales** ined.

**Miraculaceae** Buaya, Hanic & Thines

*Miracula* Buaya, Hanic & Thines (2)

**Olpidiopsidales** M.W. Dick

**Olpidiopsidaceae** Sparrow

*Olpidiopsis* Cornu (12)

**Pontismatales** Thines

**Postismataceae** H.E. Petersen

*Petersenia* Sparrow (3)

*Pontisma* H.E. Petersen (10)

*Sirolpidium* H.E. Petersen (7)

**Rozellopsidales** M.W. Dick

**Rozellopsidaceae** M.W. Dick

*Rozellopsis* Karling (5)

**Amorphea** Adl et al.

**Amoebozoa** Lühe

**Evosea** Kang et al.

**Eumycetozoa** L.S. Olive

**Dictyosteliomycetes** Doweld

**Acytosteliales** S. Baldauf, S. Sheikh & Thulin

**Acytosteliaceae** Raper ex Raper & Quinlan

*Acytostelium* Raper

*Heterostelium* S. Baldauf, S. Sheikh & Thulin

*Rostrostelium* S. Baldauf, S. Sheikh & Thulin

**Cavenderiaceae** S. Baldauf, S. Sheikh & Thulin  
*Cavenderia* S. Baldauf, S. Sheikh & Thulin

**Dictyosteliales** L.S. Olive ex P.M. Kirk et al.

**Dictyosteliaceae** Rostaf. ex Cooke

*Dictyostelium* Bref.

*Polysphondylium* Bref.

**Raperosteliaceae** S. Baldauf, S. Sheikh & Thulin

*Hagiwaraea* S. Baldauf, S. Sheikh & Thulin

*Raperostelium* S. Baldauf, S. Sheikh & Thulin

*Speleostelium* S. Baldauf, S. Sheikh & Thulin

*Tieghemostelium* S. Baldauf, S. Sheikh & Thulin

**Dictyosteliales** genus *incertae sedis*

*Coremiostelium* S. Baldauf, S. Sheikh, Thulin & Spiegel

**Dictyosteliomycetes** genera *incertae sedis*

*Coenonia* Tiegh.

*Synstelium* S. Baldauf, S. Sheikh & Thulin

**Ceratiomyxomycetes** D. Hawksw., B. Sutton & Ainsw. in Leontyev et al. (2019)

**Ceratiomyxales** G.W. Martin ex M.L. Farr & Alexop.

**Ceratiomyxaceae** J. Schröt.

*Ceratiomyxa* J. Schröt.

**Protosporangiaceae** Leontyev, Stephenson, Schnittler, Shchepin, Novozhilov

*Clastostelium* L.S. Olive & Stoian.

*Protosporangium* L.S. Olive & Stoian.

**Myxomycetes** G. Winter

**Lucisporomycetidae** Leontyev, Schnittler, S.L. Stephenson, Novozhilov & Shchepin

**Cribrariales** T. Macbr.

**Cribrariaceae** Corda

*Cribraria* Pers.

*Licaethalium* Rostaf.

*Lindbladia* Fr.

**Reticulariales** Leontyev, Schnittler, S.L. Stephenson, Novozhilov & Shchepin

**Reticulariaceae** Chevall. ex Corda

*Alwisia* Berk. & Broome (6)

*Lycogala* Adans.

*Reticularia* Bull.

*Tubifera* J.F. Gmel.

*Siphoptychium* Rostaf.

*Thecotubifera* Leontyev, Schnittler, S.L. Stephenson & Novozh.

**Liceales** E. Jahn

**Liceaceae** Chevall.

*Licea* Schrad.

*Listerella* E. Jahn

**Trichiales** T. Macbr.

**Dianemataceae** T. Macbr.

*Calomyxa* Nieuwl.

*Dianema* Rex

*Dictydiaethalium* Rostaf.

*Prototrichia* Rostaf.

**Trichiaceae** Chevall.

*Arcyodes* O.F. Cook

*Arcyria* F.H. Wigg.

*Cornuvia* Rostaf.

*Hemitrichia* Rostaf.

*Metatrichia* Ing

*Oligonema* Rostaf.

*Perichaena* Fr.

*Trichia* Haller

**Lucisporomycetidae** genera incertae sedis

*Arcyriatella* Hochg. & Gottsb.

*Calonema* Morgan

*Minakatella* G. Lister

*Trichioides* Novozh., Hoof & Jagers

**Columellomycetidae** Leontyev, Schnittler, S.L. Stephenson, Novozhilov & Shchepin

**Echinosteliopsidales** Shchepin, Leontyev, Schnittler, S.L. Stephenson, Novozhilov

**Echinosteliopsidaceae** L.S. Olive

*Echinosteliopsis* Reinhardt & L.S. Olive

**Echinosteliales** G.W. Martin

**Echinosteliaceae** Rostaf. ex Cooke

*Barbeyella* Meyl.

*Echinostelium* de Bary

*Semimorula* E.F. Haskins, McGuinn. & C.S. Berry

**Clastodermatales** Leontyev, Schnittler, S.L. Stephenson, Novozhilov & Shchepin

**Clastodermataceae** Alexop. & T.E. Brooks

*Clastoderma* A. Blytt.

**Meridermatales** Leontyev, Schnittler, S.L. Stephenson, Novozhilov & Shchepin

**Meridermataceae** Leontyev, Schnittler, S.L. Stephenson, Novozhilov & Shchepin

*Meriderma* Mar. Mey. & Poulain

**Stemonitidales** T. Macbr.

**Amaurochaetaceae** Rostaf. ex Cooke

*Amaurochaete* Rostaf.

*Brefeldia* Rostaf.

*Comatricha* Preuss

*Enerthenema* Bowman

*Paradiacheopsis* Hertel.

*Stemonaria* Nann.-Bremek., R. Sharma & Y. Yamam.

*Stemonitopsis* (Nann.-Bremek.) Nann.-Bremek.



***Stemonitidaceae*** Fr.

*Macbrideola* H.C. Gilbert

*Stemonitis* Gled.

*Symphytocarpus* Ing & Nann.-Bremek.

***Physarales*** T. Macbr.

***Lamprodermataceae*** T. Macbr.

*Collaria* Nann.-Bremek.

*Colloderma* G. Lister

*Diacheopsis* Meyl.

*Elaeomyxa* Hagelst.

*Lamproderma* Rostaf.

***Didymiaceae*** Rostaf. ex Cooke

*Diderma* Pers.

*Didymium* Schrad.

*Lepidoderma* de Bary

*Mucilago* Battarra

***Physaraceae*** Chevall.

*Badhamia* Berk.

*Craterium* Trentep.

*Fuligo* Haller

*Kelleromyxa* Eliasson

*Leocarpus* Link

*Physarella* Peck.

*Physarina* Höhn.

*Physarum* Pers.

*Willkommangea* Kuntze

***Columellomycetidae*** genera *incertae sedis*

*Diachea* Fr.

*Leptoderma* G. Lister

*Paradiachea* Hertel

*Protophysarum* M. Blackw. & Alexop.

*Trabrooksia* H.W. Keller

***Variosea*** Cavalier-Smith et al.

***Protosteliida*** Olive & Stoian. sensu Shadwick et Spiegel in Adl et al. 2012

***Protosteliidae*** Olive & Stoian., emend Spiegel

*Protostelium* L.S. Olive & Stoian.

***Fractovitellida*** Lahr et al. sensu Kang et al. 2017

***Schizoplasmodiidae*** Shadwick & Spiegel in Adl et al.

*Ceratiomyxella* L.S. Olive & Stoian.

*Nematostelium* L.S. Olive & Stoian.

*Schizoplasmodium* L.S. Olive & Stoian.

***Soliformoviidae*** Lahr & Katz

*Soliformovum* Spiegel

***Cavosteliida*** Shadwick & Spiegel in Adl et al.

***Cavosteliidae*** S.L. Olive  
*Cavostelium* S.L. Olive  
*Schizoplasmodiopsis* S.L. Olive  
*Tychosporium* Spiegel

***Tubulinea*** Smirnov et al.  
***Elardia*** Kang et al.  
***Euamoebida*** Lepši  
***Copromyxidae*** L.S. Olive & Stoian.  
*Copromyxa* Zopf

***Discosea*** Cavalier-Smith et al. sensu Smirnov et al. 2011  
***Flabellinea*** Smirnov et al.  
***Thecamoebida*** Schaeffer  
*Sappinia* P.A. Dang.

***Vannellida*** Smirnov et al.  
*Protosteliopsis* L.S. Olive & Stoian.

***Centramoebia*** Cavalier-Smith et al.  
***Acanthopodida*** Page  
*Acanthamoeba* Volkonsky  
*Luapelamoeba* Shadwick et al.

***Pellitida*** Smirnov & Cavalier-Smith sensu Kang et al. 2017  
*Endostelium* L.S. Olive, W.E. Benn. & Deasey  
***Discoba*** Simpson in Hampl et al.  
***Heterolobosea*** Page & Blanton  
***Tetramitia*** Cavalier-Smith  
***Eutetramitia*** Hanousková et al.  
***Acrasidae*** Poche  
*Acrasis* Tiegh. (incl. *Pocheina* A.R. Loeb. & Tappan)

## **Discussion**

### **Alternative classification of *Leotiomycetes*** (Authors: A.H. Ekanayaka & K.D. Hyde)

The arrangement of *Leotiomycetes* in Ekanayaka et al. (2019) and Johnston et al et al. (2019) are based on morphological interpretations and phylogenies using different data, however, they are generally congruent. Johnston et al. (2019) used three phylogenetic reconstructions, one based on 3156 single-copy genes for 49 taxa, the second based on 15 genes for 279 taxa, and the third based on ITS alone for 568 taxa. Ekanayaka et al. (2019) used five genes with 482 taxa. There are, however, some differences and therefore the outline from Ekanayaka et al. (2019) with modifications is given below with notes. Understandably, if different taxa were used in the Ekanayaka et al. (2019) and Johnston et al. (2019) phylogenies, different conclusions have been drawn and therefore the classification of *Leotiomycetes* is not settled. We hope that by providing an alternative outline, this will initiate positive discussion and further research with fresh collections to resolve inconsistencies. However, with insufficient taxa in this class having been sequenced it will take several years before the classification is stabilized.

Taxa with notes in this section are indicated by #.

***Chaetomellales*** Crous & Denman  
***Chaetomellaceae*** Baral, P.R. Johnst. & Rossman

*Chaetomella* Fuckel (26)  
*Corniculariella* P. Karst. (1)  
*Pilidium* Kunze (23)  
*Sphaerographium* Sacc. (23)  
*Synchaetomella* Decock & Seifert (3)  
*Xeropilidium* Baral & Pärtel (1)

**Cyttariales** Luttr. ex Gamundí

**Cordieritidaceae** Sacc.<sup>#</sup>

*Ameghiniella* Speg. (2)  
*Annabella* Fryar, Haelew., & D.E.A. Catches. (1)  
*Austrocenangium* Gamundí (2)  
*Cordierites* Mont. (5)  
*Diplocarpa* Masee (2)  
*Diplolaeviopsis* Giralt & D. Hawksw. (3)  
*Gelatinopsis* Rambold & Triebel (8)  
*Ionomidotis* E.J. Durand ex Thaxt. (13)  
*Llimoniella* Hafellner & Nav.-Ros. (19)  
*Macroskyttea* Etayo, Flakus, Suija & Kukwa (1)  
*Midotiopsis* Henn. (2)  
*Phaeangella* (Sacc.) Masee (11)  
*Rhymbocarpus* Zopf (12)  
*Rhizocladosporium* Crous & U. Braun (1)  
*Skyttea* Sherwood, D. Hawksw. & Coppins (30)  
*Skyttella* D. Hawksw. & R. Sant. (2)  
*Sabahriopsis* Crous & M.J. Wingf. (1)  
*Thamnogalla* D. Hawksw. (1)  
*Unguiculariopsis* Rehm (25)

**Cyttariaceae** Lév.

*Cyttaria* Berk. (13)

**Deltopyxidaceae** Ekanayaka & K.D. Hyde<sup>#</sup>

*Deltopyxis* Baral & G. Marson (1)  
*Phaeopyxis* Rambold & Triebel (1)

**Erysiphales** Gwynne-Vaughan<sup>#</sup>

**Amorphothecaceae** Parbery (= *Myxotrichaceae* Locq. ex Currah *vide* Ekanayaka et al. 2019)<sup>#</sup>

*Amorphotheca* Parbery (1)  
*Brefeldochium* Verkley (1)  
*Byssoascus* Arx (2)  
*Myxotrichum* Kunze (12)  
*Oidiodendron* Robak (ca. 30)  
*Polydesmia* Boud. (7)  
*Hormoconis* Arx & G.A. de Vries (2)

**Erysiphaceae** Tul. & C. Tul.

*Arthrocladiella* Vassilkov (1)  
*Blumeria* Golovin ex Speer (1)  
*Brasiliomyces* Viégas (6)  
*Bulbomicroidium* Marm., S. Takam. & U. Braun (1)  
*Caespitotheca* S. Takam. & U. Braun (1)

*Cystotheca* Berk. & M.A. Curtis (9)  
*Erysiphe* R. Hedw. ex DC. (478)  
*Golovinomyces* (U. Braun) V.P. Heluta (66)  
*Leveillula* G. Arnaud (49)  
*Microidium* (To-anun & S. Takam.) To-anun & S. Takam. (3)  
*Neoerysiphe* U. Braun (15)  
*Oidiopsis* Scalia (ca. 12)  
*Oidium* Link (ca. 200+)  
*Ovulariopsis* Pat. & Har. (ca. 13)  
*Parauncinula* S. Takam. & U. Braun (4)  
*Phyllactinia* Lév. (117)  
*Pleochaeta* Sacc. & Speg. (5)  
*Podosphaera* Kunze (124)  
*Pseudoidium* Y.S. Paul & J.N. Kapoor (ca. 80)  
*Queirozia* Viégas & Cardoso (1)  
*Sawadaea* Miyabe (10)  
*Takamatsuella* U. Braun & A. Shi (1)  
*Typhulochaeta* S. Ito & Hara (ca. 4)

***Helotiales*** Nannf. ex Korf & Lizoň

***Arachnopezizaceae*** Hosoya, J.G. Han & Baral

*Arachnopeziza* Fuckel (15)  
*Arachnoscypha* Boud. (3)  
*Austropezia* Spooner (1)  
*Eriopezia* (Sacc.) Rehm (30)  
*Durella* Tul. & C. Tul. (5)

***Bryoglossaceae*** Ekanayaka & K.D. Hyde

*Bryoclavicus* L. Ludw., P.R. Johnst. & Steel (1)  
*Bryoglossum* Redhead (2)  
*Neocudoniella* S. Imai (2)

***Chlorociboriaceae*** Baral & P.R. Johnst.<sup>#</sup>

*Chlorociboria* Seaver ex C.S. Ramamurthi, Korf & L.R. Batra (22)

***Chlorospleniaceae*** Ekanayaka & K.D. Hyde

*Chlorosplenium* Fr. (5)

***Chrysodiscaceae*** Baral & Haelew.

*Chrysodisca* Baral, Polhorský & G. Marson (1)

***Discinellaceae*** Ekanayaka & K.D. Hyde

*Articulospora* Ingold (ca. 5)  
*Acidea* Hujslová & M. Kolařík (1)  
*Cladochasiella* Marvanová (1)  
*Discinella* Boud. (ca. 15)  
*Fontanospora* Dyko (1)  
*Gyoerffyella* Kol (10)  
*Lemonniera* De Wild. (7)  
*Naevala* B. Hein (6)  
*Margaritispota* Ingold (1)  
*Pezoloma* Clem. (ca. 15)  
*Tetrachaetum* Ingold (3)

**Drepanopezizaceae** Baral (= *Drepanopezizaceae* Bat. & H. Maia; Nom. inval., Arts 32.1(c), 36, 39.1 (Melbourne))

- Blumeriella* Arx (= *Higginsia* Nannf.; = *Phloeosporella* Höhn., = *Microgloeum* Petr.) (7)
- Diplocarpon* F.A. Wolf (7)
- Drepanopeziza* (Kleb.) Höhn. (= *Gloeosporidiella* Petr.) (5)
- Felisbertia* Viégas (7)
- Leptotrochila* P. Karst. (= *Ephelina* Sacc.; = *Fabraea* Sacc.; = *Sporonema* Desm.) (15)
- Pseudopezicula* Korf (2)
- Spilopodia* Boud. (= *Holmiodiscus* Svrček; = *Melanodiscus* Höhn.) (ca. 4)
- Spilopodiella* E. Müll. (1)
- Thegonia* B. Sutton (6)

**Gelatinodiscaceae** S.E. Carp

- Ascocoryne* J.W. Groves & D.E. Wilson (= *Didymocoryne* Sacc. & Trotter) (8)
- Ascotremella* Seaver (2)
- Chloroscypha* Seaver (14)
- Dimorphospora* Tubaki (1)
- Helicodendron* Peyronel (3)
- Neobulgaria* Petr. (11)
- Phaeangellina* Dennis (1)
- Skyathea* Spooner & Dennis (1)

**Godroniaceae** Baral

- Ascocalyx* Naumov (4)
- Atropellis* Zeller & Goodd. (4)
- Godronia* Moug. & Lév. (ca. 30)
- Gremmeniella* M. Morelet (3)
- Grovesiella* M. Morelet (2)

**Helotiaceae** Rehm (= *Roesleriaceae* Y.J. Yao & Spooner *vide* Ekanayaka et al. 2019)

- Amylocarpus* Curr. (1)
- Asterocalyx* Höhn. (1)
- Ascoconidium* Seaver (3)
- Bryoscyphus* Spooner (19)
- Calycella sensu* (Sacc.) Sacc. (1)
- Crocicreas* Fr. (5)
- Eubelonis* Clem. (2)
- Cudoniella* Sacc. (31)
- Cyathicula* De Not. (30)
- Dicephalospora* Spooner (4)
- Endoscypha* Syd. (1)
- Discorehmia* Kirschst. (5)
- Glarea* Bills & Paláez (2)
- Gloeotinia* M. Wilson, Noble & E.G. Gray (2)
- Helicocentralis* Sri-indr., Chuaseehar., Boonyuen, K. Yamag., Suetrong & C.K.M. Tsui (1)
- Hymenoscyphus* Gray (170)
- Hymenotorrendiella* P.R. Johnst., Baral & R. Galán (9)
- Lanzia* Sacc. (55)
- Muscicola* Velen. (1)
- Mytilodiscus* Kropp & S.E. Carp. (1)
- Ombrophila* Fr. (11)

*Phaeohelotium* Kanouse (41)  
*Pirottaea* Sacc. (28)  
*Pithyella* Boud. (8)  
*Pseudoniptera* Velen. (25)  
*Roesleria* Thüm. & Pass. (ca. 10)  
*Roeslerina* Redhead (3)  
*Symphyosirinia* E.A. Ellis (6)  
*Tatraea* Svrcek (2)  
*Torrendiella* Boud. & Torrend (3)  
*Xylogramma* Wallr. (18)

***Heterosphaeriaceae*** Rehm

*Heterosphaeria* Grev. (7)

***Hyaloscyphaceae*** Nannf.

*Ambrodiscus* S.E. Carp. (1)  
*Aeruginoscyphus* Dougoud (7)  
*Arbusculina* Marvanová & Descals (3)  
*Clathrosphaerina* Beverw. (2)  
*Curviclavula* G. Delgado, F.A. Fernández & A.N. Mill. (1)  
*Dimorphotricha* Spooner (1)  
*Echinula* Graddon (1)  
*Glutinomyces* Nor. Nakam. (1)  
*Graddonidiscus* Raitv. & R. Galán (3)  
*Grahamiella* Spooner (3)  
*Hegermila* Raitv. (4)  
*Hyaloscypha* Boud. (45)  
*Hyalodendriella* Crous (1)  
*Hypopeziza* J.G. Han, Hosoya & H.D. Shin (1)  
*Incrupila* Raitv. (10)  
*Meliniomyces* Hambl. & Sigler (3)  
*Olla* Velen. (2)  
*Parachnopeziza* Korf (8)  
*Polaroscyphus* Huhtinen (1)  
*Proprioscypha* Spooner (1)  
*Protoungicularia* Raitv. & R. Galán (10)  
*Pseudaegerita* J.L. Crane & Schokn. (7)  
*Psilocistella* Svrcek (10)  
*Rhizoscyphus* W.Y. Zhuang & Korf (1)  
*Scytalidium* Pesante (ca. 30)  
*Thindiomyces* Arendh. & R. Sharma (1)  
*Ungiculariella* K.S. Thind & R. Sharma (1)  
*Ungiculella* Höhn. (17)

***Hydrocinaceae*** Ekanayaka & K.D. Hyde

*Clathrosporium* Nawawi & Kuthub. (1)  
*Filosporella* Nawawi (6)  
*Hydrocina* Scheuer (1)  
*Varicosporium* W. Kegel (11)  
*Xerombrophila* Baral (1)

***Lachnaceae*** Raitv.

*Albotricha* Raitv. (19)  
*Asperopilum* Spooner (1)  
*Belonidium* Mont. & Dur. (1)  
*Brunnipila* Baral (10)  
*Capitotricha* (Raitv.) Baral (10)  
*Crucellisporiopsis* Nag Raj (3)  
*Crucellisporium* M.L. Farr (3)  
*Dasyscyphella* Tranzschel (1)  
*Erioscyphella* Kirschst. (10)  
*Incrucipulum* Baral (6)  
*Lachnellula* P. Karst. (40)  
*Lachnum* Retz. (50)  
*Lachnopsis* Guatim., R.W. Barreto & Crous (1)  
*Neodasyscypha* Suková & Spooner (2)  
*Perrotia* Boud. (19)  
*Proliferodiscus* J.H. Haines & Dumont (8)  
*Tubolachnum* Velen. (2)  
*Velebitea* I. Kušan, Matočec & Jadan (1)

***Loramycetaceae*** Dennis ex Digby & Goos

*Acidomelania* E. Walsh & N. Zhang (1)  
*Loramycetes* W. Weston (2)  
*Obtectodiscus* E. Müll., Petrini & Samuels (2)

***Mitrulaceae*** Rchb.

*Mitrula* Fr. (8)

***Mollisiaceae*** Rehm

*Bulbomollisia* Graddon (1)  
*Cystodendron* Bubák (2)  
*Discocurtisia* Nannf. (12)  
*Mollisia* (Fr.) P. Karst. (130)  
*Neotapesia* E. Müll. & Hütter (3)  
*Niptera* Fr. (10)  
*Nipterella* Starbäck ex Dennis (2)  
*Phialocephala* W.B. Kendr. (37)  
*Pseudonaevia* Dennis & Spooner (2)  
*Pyrenopeziza* Fuckel (3)  
*Sarconiptera* Raitv. (1)  
*Scutobelonium* Graddon (1)  
*Scutomollisia* Nannf. (14)  
*Tapesia* (Pers.) Fuckel (ca. 25)  
*Trimmatostroma* Corda (30)  
*Variocladium* Descals & Marvanová (1)

***Ploettnerulaceae*** Kirschst.

*Cadophora* Lagerb. & Melin (15)  
*Collembolispota* Marvanová & Pascoal (2)  
*Cylindrosporium* Grev. (3)  
*Dennisiodiscus* Svrcek (10)  
*Lasiomollisia* Raitv. & Vesterh. (1)  
*Mastigosporium* Riess (4)  
*Mycochaetophora* Hara & Ogawa (2)

*Nothopacidium* J. Reid & Cain (1)  
*Oculimacula* Crous & W. Gams (6)  
*Peltigeromyces* A. Möller (3)  
*Ploettnerula* Kirschst. (1)  
*Pseudopeziza* Fuckel (4)  
*Rhexocercosporidium* U. Braun (2)  
*Rhynchosporium* Heinsen ex A.B. Frank (5)  
*Ypsilina* J. Webster, Descals & Marvanová (1)

***Solenopeziaceae*** Ekanayaka & K.D. Hyde

*Geniculospora* Sv. Nilsson ex Marvanová & Sv. Nilsson (2)  
*Graddonia* Dennis (7)  
*Halenospora* E.B.G. Jones (1)  
*Lasiobelonium* Ellis & Everh. (20)  
*Mycofalcella* Marvanová, Om-Kalth. & J. Webster (2)  
*Solenopezia* Sacc. (7)  
*Trichopeziza* Fuckel (30)  
*Trichopezizella* Dennis ex Raitv. (12)  
*Tricladium* Ingold (25)

***Vibrisseaceae*** Korf

*Acephala* Grünig & T.N. Sieber (2)  
*Cheirospora* Moug. & Fr. (2)  
*Diplococcium* Grove (30)  
*Fuscosclera* Hern.-Restr., J. Mena & Gené (1)  
*Gorgoniceps* (P. Karst.) P. Karst. (3)  
*Leucovibrisea* (A. Sánchez) Korf (1)  
*Pocillum* De Not. (1)  
*Strossmayeria* Schulzer (= *Pseudospiropes* M.B. Ellis) (16)  
*Srinivasanomyces* S. Rana & S.K. Singh (1)  
*Vibrisea* Fr. (34)

***Helotiales*** genera *incertae sedis*

*Aquapoterium* Raja & Shearer (1)  
*Arboricolonus* S. Bien & Damm (1)  
*Barrenia* E. Walsh & N. Zhang (2)  
*Brackelia* Zhurb. (1)  
*Bulgariella* P. Karst. (4)  
*Cecidioskyttea* Etayo (1)  
*Chlorovibrisea* L.M. Kohn (4)  
*Colipila* Baral & Guy García (2)  
*Connorsia* Malloch (1)  
*Cryptocline* Petr. (20)  
*Encoeliopsis* Nannf. (4)  
*Gamarada* D.J. Midgley & Tran-Dinh (1)  
*Larissia* Raitv. (1)  
*Lemalis* Fr. (3)  
*Libartania* Nag Raj (2)  
*Merodontis* Clem. (1)  
*Mitrulinia* Spooner (1)  
*Mollisiopsis* Rehm (7)  
*Muscia* Gizhitsk (1)



*Patellariopsis* Dennis (5)  
*Pestalopezia* Seaver (3)  
*Phacidiella* P. Karst. (1)  
*Pleuroascus* Masee & E.S. Salmon (11)  
*Pseudomitrla* Gamundí (1)  
*Sambucina* Velen. (1)  
*Sarcomyces* Masee (1)  
*Unguicularia* Höhn. (7)

**Lahmiales** O.E. Erikss.

**Lahmiaceae** O.E. Erikss.

*Lahmia* Körb. (1)

**Lauriomycetales** Hern.-Restr., R.F. Castañeda & Guarro

**Lauriomycetaceae** Hern.-Restr., R.F. Castañeda & Guarro

*Lauriomyces* R.F. Castañeda (11)

**Leotiales** Korf & Lizoñ

**Cochlearomycetaceae** Crous<sup>#</sup>

*Cochlearomyces* Crous (1)

**Leotiaceae** Corda

*Geocoryne* Korf (2)

*Leotia* Pers. (4)

*Microglossum* Gillet (ca. 10)

*Thuemenidium* Kuntze (1)

**Mniaeciaceae** Baral

*Mniaecia* Boud. (= *Epiglia* Boud.) (6)

**Tympanidaceae** Baral & Quijada

*Aotearoamyces* P.R. Johnst., J.A. Cooper & Quijada (1)

*Claussenomyces* Kirschst. (ca. 19)

*Collophorina* Damm & Crous (6)

*Durandiella* Seaver (15)

*Gelatinosporium* Peck (15)

*Myriodiscus* Boedijn (1)

*Pragmopora* A. Massal. (7)

*Tympanis* Fr. (ca. 27)

**Leotiales** genus *incertae sedis*

*Gelatinomyces* Sanoam., Sanoam., Jitjak, Rodtong & Whalley (2)

**Lichinodiales** M. Prieto, M. Schultz, Olariaga & Wedin

**Lichinodiaceae** M. Prieto, M. Schultz, Olariaga & Wedin

*Lichinodium* Nyl. (4)

*Mycosymbioces* J.L. Frank (1)

**Lichinodiales** genera *incertae sedis*

*Epithamnolia* Zhurb. (6)

*Fulvoflamma* Crous (1)

**Marthamycetales** P.R. Johnst. & Baral

**Marthamycetaceae** Baral, Lantz, Hustad & Minter  
*Cyclaneusma* DiCosmo, Peredo & Minter (2)  
*Marthamyces* Minter (13)  
*Mellitiosporiella* Höhn. (2)  
*Mellitiosporium* Corda (11)  
*Naemacyclus* Fuckel (6)  
*Phragmiticola* Sherwood (1)  
*Propolina* Sacc. (1)  
*Propolis* (Fr.) Corda (ca. 9)

**Medeolariales** Korf<sup>#</sup>

**Ascocorticiaceae** J. Schröt.  
*Ascocorticiellum* Jülich & B. de Vries (3)  
*Ascocorticium* Bref. (8)  
*Ascosorus* P. Henn. & Ruhland (1)

**Ascodichaenaceae** D. Hawksw. & Sherwood

*Ascodichaena* Butin (2)  
*Delpinoina* Kuntze (2)

**Dermateaceae** Fr.

*Arctomollisia* Raitv. (2)  
*Cashiella* Petr. (3)  
*Davidhawksworthia* Crous (1)  
*Dermea* Fr. (25)  
*Gelatinoamylaria* Prasher & R. Sharma (1)  
*Neofabraea* H.S. Jacks. (7)  
*Pezicula* Tul. & C. Tul. (50)  
*Phlyctema* Desm. (30)  
*Pseudofabraea* Chen Chen, Verkley & Crous (1)  
*Rhizodermea* Verkley & J.D. Zijlstra (1)  
*Schizothyrioma* Höhn. (1)  
*Verkleyomyces* Y. Marín & Crous (1)

**Medeolariaceae** Korf

*Medeolaria* Thaxt. (1)

**Medeolariales** genera *incertae sedis*

*Coleophoma* Höhn. (35)  
*Parafabraea* Chen Chen, Verkley & Crous (2)

**Phacidiales** C.E. Bessey

**Helicogoniaceae** Baral

*Eleutheromycella* Höhn. (1)  
*Eleutheromyces* Fuckel (1)  
*Gelatinipulvinella* Hosoya & Y. Otani (2)  
*Geltingia* Alstrup & D. Hawksw. (1)  
*Helicogonium* W.L. White (19)  
*Humicolopsis* Cabral & S. Marchand (2)

**Phacidiaceae** Fr. (= *Bulgariaceae* Fr.; = *Phacidiostromataceae* Höhn. *vide* Jaklitsch et al. 2016a)

*Allantophomopsiella* Crous (1)  
*Allantophomopsis* Petr. (8)  
*Bulgaria* Fr. (2)  
*Calvophomopsis* J.B. Tanney & Seifer (1)  
*Ceuthospora* Grev. (ca. 100)<sup>#</sup>  
*Cornibusella* J.B. Tanney & Seifer (1)  
*Darkera* H.S. Whitney, J. Reid & Piroz. (5)  
*Gloeopycnis* J.B. Tanney & Seifer (1)  
*Phacidiopycnis* Potebnia (5)  
*Phacidium* Fr. (ca. 200)  
*Potebniamyces* Smerlis (1)<sup>#</sup>  
*Pseudophacidium* P. Karst. (5)  
*Starbaeckia* Rehm ex Starbäck (1)  
*Strasseria* Bres. & Sacc. (1)<sup>#</sup>  
<sup>#</sup>Ekanayaka et al. (2019) accepted these genera in *Phacidiaceae*

***Phacidiales* genus *incertae sedis***  
*Coma* Nag Raj & W.B. Kendr. (2)

***Rhytismatales*** M.E. Barr ex Minter

***Rhytismataceae*** Chevall. (= *Hypodermataceae* Rehm; = *Cryptomycetaceae* Höhn. nom. inval.  
*vide* Jaklitsch et al. 2016a; = *Cudoniaceae* P.F. Cannon *vide* Ekanayaka et al. 2019)

*Angelina* Fr. (1)  
*Apiodiscus* Petr. (1)  
*Bifusella* Höhn. (11)  
*Bifusepta* Darker (1)  
*Bivallum* P.R. Johnst. (7)  
*Bonanseja* Sacc. (1)  
*Canavirgella* W. Merr, Wenner & Dreisbach (1)  
*Cavaraella* Speg. (1)  
*Ceratophacidium* J. Reid & Piroz. (1)  
*Cerion* Masee (2)  
*Coccomyces* De Not. (118)  
*Colpoma* Wallr. (14)  
*Criella* (Sacc.) Henn. (2)  
*Cryptomyces* Grev. (1)  
*Cudonia* Fr. (9)  
*Davisomycella* Darker (10)  
*Didymascus* Sacc. (1)  
*Discocainia* J. Reid & A. Funk (4)  
*Duplicaria* Fuckel (1)  
*Duplicariella* B. Erikss. (1)  
*Elytroderma* Darker (1)  
*Gelineostroma* H.J. Swart (1)  
*Haplophyse* Theiss. (10)  
*Heufleria* Auersw. (1)  
*Hypoderma* De Not. (1)  
*Hypodermella* Tubeuf (3)  
*Hypodermellina* Höhn. (1)  
*Hypohelion* P.R. Johnst. (3)  
*Irydyonia* Racib. (1)

*Laquearia* Fr. (1)  
*Lasiostictella* Sherwood (1)  
*Lirula* Darker (3)  
*Lophodermella* Höhn. (9)  
*Lophodermium* Chevall. (145)  
*Lophopacidium* Lagerb. (5)  
*Macroderma* Höhn. (1)  
*Meloderma* Darker (9)  
*Moutoniella* Penz. & Sacc. (1)  
*Mycomelanea* Velen. (1)  
*Myriopacidium* Sherwood (6)  
*Nematococcomyces* C.L. Hou, M. Piepenbr. & Oberw. (9)  
*Neococcomyces* Y.R. Lin, C.T. Xiang & Z.Z. Li (3)  
*Neopacidium* Petr. (2)  
*Nothorhytisma* Minter, P.F. Cannon, A.I. Romero & Peredo (3)  
*Nymanomyces* Henn. (1)  
*Parvacoccum* R.S. Hunt & A. Funk (1)  
*Phaeopacidium* P. Henn. & Lindau (4)  
*Ploioderma* Darker (7)  
*Propolidium* Sacc. (2)  
*Pseudorhytisma* Juel (1)  
*Pseudotrochila* Höhn. (2)  
*Pureke* P.R. Johnst. (7)  
*Rhytisma* Fr. (21)  
*Soleella* Darker (7)  
*Spathularia* Pers. (ca. 12)  
*Sporomega* Corda (7)  
*Terriera* B. Erikss. (26)  
*Therrya* Sacc. (7)  
*Triblidiopsis* P. Karst. (2)  
*Tryblidiopsis* P. Karst. (3)  
*Virgella* Darker (1)  
*Vladracula* P.F. Cannon, Minter & Kamal (2)  
*Xyloschizon* Syd. (2)  
*Zeus* Minter & Diamandis (2)

#### ***Tribliaceae* Rehm**

*Huangshania* O.E. Erikss. (2)  
*Pseudographis* Nyl. (3)  
*Triblidium* Rebm. (6)

#### ***Thelebolales* P.F. Cannon**

#### ***Thelebolaceae* A. Engler (=Pseudeurotiaceae Malloch & Cain *vide* Ekanayaka et al. 2019)**

*Antarctomyces* Stchigel & Guarro (1)  
*Ascophanus* Boud. (20)  
*Ascozonus* (Renny) E.C. Hansen (6)  
*Caccobius* Kimbr. (6)  
*Cleistothelebolus* Malloch & Cain (13)  
*Coprobolus* Cain & Kimbr. (1)  
*Geomyces* Traaen (ca. 10)  
*Gymnostellatospora* Udagawa, Uchiy. & Kamiya (ca. 6)  
*Holwaya* Sacc. (= *Crinula* Fr.) (2)

*Leptokalpion* Brumm. (2)  
*Leuconeurospora* Malloch & Cain (3)  
*Neelakesa* Udaiyan & Hosag. (3)  
*Patinella* Sacc. (1)  
*Pseudascozonus* Brumm. (1)  
*Pseudeurotium* J.F.H. Beyma (6)  
*Pseudogymnoascus* Raillo (ca. 10)  
*Ramgea* Brumm. (2)  
*Thelebolus* Tode (13)

***Thelebolales* genera incertae sedis**

*Alatospora* Ingold (4)  
*Gorgomyces* M. Gönczöl & Révay (2)  
*Miniancora* Marvanová & Bärl. (1)

***Leotiomyces* families incertae sedis**

***Cenangiaceae* Rehm<sup>#</sup>**

*Cenangium* Fr. (30)  
*Moellerodiscus* Henn. (7)  
*Piceomphale* Svrcek (1)

***Calloriaceae* L. Marchand<sup>#</sup>**

*Aivenia* Svrček (4)  
*Belonioscyphella* Höhn. (4)  
*Calloria* Fr. (5)  
*Chaetonaevia* Arx (3)  
*Cistella* Quél. (45)  
*Dactylaria* Sacc. (ca. 100)  
*Diplonaevia* Sacc. (23)  
*Duebenia* Fr. (5)  
*Eupropolella* Höhn. (7)  
*Hyalacrotus* (Korf & L.M. Kohn) Raitv. (2)  
*Iridinea* Velen. (2)  
*Laetinaevia* Nannf. (15)  
*Leohumicola* N.L. Nick. (7)  
*Loricella* Velen. (2)  
*Micropodia* Boud. (2)  
*Mycoarthritis* Marvanová & P.J. Fisher (1)  
*Naeviella* (Rehm) Clem. (3)  
*Naeviopsis* B. Hein (3)  
*Ploettnera* Henn. (5)  
*Polyphilus* D.G. Knapp, Ashrafi, W. Maier & Kovács (2)  
*Psilachnum* Höhn. (28)  
*Rodwayella* Spooner (3)  
*Rommelaarsia* Baral & Haelew. (1)  
*Roseodiscus* Baral (6)  
*Stannaria* Fuckel (5)  
*Tetracladium* De Wild. (11)  
*Urceolella* Boud. (24)

***Hamatocanthoscyphaceae* Ekanayaka & K.D. Hyde**

*Brachyalara* Réblová & W. Gams (1)

*Chalara* (Corda) Rabenh. (ca. 100)  
*Ciliolarina* Svrček (1)  
*Gremmenia* Korf (4)  
*Hamatocanthoscypha* Svrček (3)  
*Infundichalara* Réblová & W. Gams (2)  
*Microscypha* Syd. & P. Syd. (6)  
*Pseudohelotium* Fuckel (50)  
*Xenochalara* M.J. Wingf. & Crous (1)  
*Xenopolyscytalum* Crous (1)

***Hemiphacidiaceae*** Korf<sup>#</sup>

*Calycellinopsis* W.Y. Zhuang (1)  
*Cenangiosis* Rehm (2)  
*Chlorencoelia* J.R. Dixon (4)  
*Crumenulopsis* J.W. Groves (1)  
*Didymascella* Maire & Sacc. (5)  
*Encoelia* (Fr.) P. Karst. (40)  
*Fabrella* Kirschst. (1)  
*Heyderia* Link (6)  
*Hysterostegiella* Höhn. (10)  
*Korfia* J. Reid & Cain (1)  
*Rhabdocline* Syd. (4)  
*Sarcotrochila* Höhn. (4)  
*Trochila* Fr. (15)  
*Velutarina* Korf (3)

***Hyphodiscaceae*** Ekanayaka & K.D. Hyde

*Fuscolachnum* J.H. Haines (7)  
*Hyalopeziza* Fuckel (15)  
*Hyphodiscus* Kirschst. (16)  
*Soosiella* Hujslová & M. Kolařík (1)  
*Scolecachnum* Guatim., R.W. Barreto & Crous (2)  
*Venturiocistella* Raitv. (7)

***Leptodontidiaceae*** Hern.-Restr., Crous & Gené<sup>#</sup>

*Leptodontidium* de Hoog. (11)

***Neocrinulaceae*** Crous

*Neocrinula* Crous (2)

***Neolauriomycetaceae*** Crous<sup>#</sup>

*Exochalara* W. Gams & Hol.-Jech. (3)  
*Lareunionomyces* Crous & M.J. Wingf. (2)  
*Neolauriomycetes* Crous (1)

***Pezizellaceae*** Velen. (= *Bloxamiaceae* Locq. ex Hern.-Restr., Gené, R.F. Castañeda, J. Mena, Crous & Guarro *fide* Ekanayaka et al. 2019)<sup>#</sup>

*Allophylaria* (P. Karst.) P. Karst. (6)  
*Antinoa* Velen. (8)  
*Bisporella* Sacc. (19)  
*Bloxamia* Berk. & Broome (19)  
*Calycellina* Höhn (45)

*Calycina* Nees ex Gray (= *Pezizella* Fuckel) (30)  
*Micropeziza* Fuckel (12)  
*Mollisina* Höhn. ex Weese (11)  
*Mollisinopsis* Arendh. & R. Sharma (3)  
*Moserella* Pöder & Scheuer (1)  
*Orbiliopsis* (Sacc. & D. Sacc.) Syd. & P. Syd. (2)  
*Phaeoscypha* Spooner (1)  
*Phialina* Höhn. (ca. 13)  
*Triposporium* Corda (14)  
*Poculinia* Spooner (1)  
*Scleropezicula* Verkley (6)  
*Velutaria* Fuckel (1)  
*Xiambola* Minter & Hol.-Jech. (1)  
*Zymochalara* Guatim., R.W. Barreto & Crous (2)

***Rutstroemiaceae*** Holst-Jensen, L.M. Kohn & T. Schumach. #

*Bicornispora* Checa, Barrasa, M.N. Blanco & A.T. Martínez (2)  
*Dencoeliopsis* Korf (2)  
*Lambertella* Höhn. (6)  
*Neometulocladosporiella* Crous & M.J. Wingf. (1)  
*Rutstroemia* P. Karst. (ca. 100)

***Sclerotiniaceae*** Whetzel#

*Amerosporium* Speg. (31)  
*Amphobotrys* Hennebert (1)  
*Banksiamyces* G. Beaton (4)  
*Botrytis* P. Micheli ex Pers. (3)  
*Ciboria* Fuckel (21)  
*Ciborinia* Whetzel (ca. 16)  
*Clarireedia* L.A. Beirn, B.B. Clarke, C. Salgado & J.A. Crouch (4)  
*Coprotinia* Whetzel (1)  
*Cristulariella* Höhn. (5)  
*Cudoniopsis* Speg. (1)  
*Dumontinia* L.M. Kohn (5)  
*Elliottinia* L.M. Kohn (1)  
*Grovesinia* M.N. Cline, J.L. Crane & S.D. Cline (2)  
*Haradamyces* Masuya, Kusunoki, Kosaka & Aikawa (1)  
*Kohninia* Holst-Jensen, Vrålstad & T. Schumach. (1)  
*Martininia* Dumont & Korf (1)  
*Monilinia* Honey (30)  
*Mycopappus* Redhead & G.P. White (4)  
*Myrioconium* Syd. & P. Syd. (10)  
*Myriosclerotinia* N.F. Buchw. (10)  
*Ovulinia* Weiss (9)  
*Phaeosclerotinia* Hori (1)  
*Poculum* Velen. (ca. 22)  
*Pseudociboria* Kanouse (1)  
*Pycnopeziza* W.L. White & Whetzel (5)  
*Redheadia* Y. Suto & Suyama (1)  
*Sclerencoelia* Pärtel & Baral (3)  
*Scleromitrulea* S. Imai (6)  
*Sclerotinia* Fuckel (15)

*Sclerotium* Tode (100)  
*Seaverinia* Whetzel (2)  
*Septotinia* Whetzel ex J.W. Groves & M.E. Elliott (2)  
*Streptotinia* Whetzel (3)  
*Stromatinia* (Boud.) Boud. (15)  
*Valdensia* Peyronel (3)  
*Valdensinia* Peyronel (1)

***Vandijkellaceae*** Sandoval-Denis  
*Vandijkella* Sandoval-Denis (1)

***Leotiomyces*** family *incertae sedis*

***Porodiplodiaceae*** Crous  
*Porodiplodia* Crous (1)

***Leotiomyces*** genera *incertae sedis*

*Adelodiscus* Syd. (3)  
*Algincola* Velen. (1)  
*Apiculospora* Wijayaw., Camporesi, A.J.L. Phillips & K.D. Hyde (1)  
*Aquadiscula* Shearer & J.L. Crane (2)  
*Ascluella* DiCosmo, Nag Raj & W.B. Kendr. (1)  
*Ascoclavulina* Otani (8)  
*Bagnisimitrula* S. Imai (1)  
*Benguetia* Syd. & P. Syd. (1)  
*Bioscypha* Syd. (2)  
*Bulgariopsis* Henn. (2)  
*Callerascus* Whitton, K.D. Hyde & McKenzie (1)  
*Calloriopsis* Syd. & P. Syd. (2)  
*Capillipes* R. Sant. (1)  
*Capricola* Velen. (1)  
*Cejpia* Velen. (3)  
*Cenangiumella* J. Fröhl. & K.D. Hyde (1)  
*Chloroepilichen* Etayo (1)  
*Chlorospleniella* P. Karst. (1)  
*Chondroderris* Maire (1)  
*Ciliella* Sacc. & P. Syd. (1)  
*Coleosperma* Ingold (1)  
*Comesia* Sacc. (3)  
*Cornuntum* Velen. (1)  
*Coronellaria* P. Karst. (4)  
*Criserosphaeria* Speg. (1)  
*Crumenella* P. Karst. (1)  
*Cryptohymenium* Samuels & L.M. Kohn (1)  
*Cryptopezia* Höhn. (1)  
*Dawsicola* Döbbeler (1)  
*Dermateopsis* Nannf. (2)  
*Didonia* Velen. (5)  
*Discomycella* Höhn. (1)  
*Echinodiscus* Etayo & Diederich (2)  
*Epicladonia* D. Hawksw. *sensu stricto* (3)  
*Episclerotium* L.M. Kohn (2)  
*Erikssonopsis* M. Morelet (1)



*Flagellospora* Ingold (6)  
*Gloeopeziza* Zúkal (8)  
*Godroniopsis* Diehl & E.K. Cash (3)  
*Grimmicola* Döbbeler & Hertel (1)  
*Grovesia* Dennis (1)  
*Helotiella* Sacc. (1)  
*Hemiglossum* Pat. (2)  
*Hymenobolus* Durieu & Mont. (3)  
*Hyphoscypha* Velen. (1)  
*Hysteronaevia* Nannf. (12)  
*Hysteropezizella* Höhn. (19)  
*Involucroscypha* Raitv. (10)  
*Jacobsonia* Boedijn (1)  
*Lasseria* Dennis (1)  
*Livia* Velen. (1)  
*Masseea* Sacc. (4)  
*Melanopeziza* Velen. (1)  
*Melanormia* Körb. (1)  
*Metapezizella* Petr. (1)  
*Micraspis* Darker (3)  
*Microdiscus* Sacc. (1)  
*Monochaetiollopsis* B. Sutton & DiCosmo (2)  
*Mycosphaerangium* Verkley (3)  
*Obconicum* Velen. (2)  
*Obscurodiscus* Raitv. (1)  
*Ocotomyces* H.C. Evans & Minter (1)  
*Otwaya* G.W. Beaton (12)  
*Pachydisca* Boud. (1)  
*Parencoelia* Petr. (4)  
*Patinellaria* P. Karst. (1)  
*Pezolepis* Syd. (2)  
*Pezomela* Syd. (1)  
*Phaeofabraea* Rehm (1)  
*Phragmonaevia* Rehm (?1)  
*Phyllopezis* Petr. (1)  
*Physmatomyces* Rehm (1)  
*Pleoscutula* Vouaux (3)  
*Podophacidium* Niessl (2)  
*Polydiscidium* Wakef. (7)  
*Polydiscina* Syd. (1)  
*Potridiscus* Döbbeler & Triebel (1)  
*Pseudolachnum* Velen. (1)  
*Pseudopeltis* L. Holm & K. Holm (1)  
*Pseudotryblidium* Rehm (1)  
*Psilophana* Syd. (1)  
*Psilotheceum* Clem. (1)  
*Pteromyces* E. Bommer, M. Rousseau & Sacc. (1)  
*Pubigera* Baral, Gminder & Svrček (1)  
*Radotinea* Velen. (1)  
*Rhizocalyx* Petr. (1)  
*Rhizothyrium* Naumov (1)  
*Riedera* Fr. (1)

*Sageria* A. Funk (1)  
*Schnablia* Sacc. & P. Syd. (1)  
*Sclerocrana* Samuels & L.M. Kohn (4)  
*Scutulopsis* Velen. (1)  
*Sinofavus* W.Y. Zhuang (1)  
*Sorokina* Sacc. (1)  
*Sorokinella* J. Fröhl. & K.D. Hyde (2)  
*Spirosphaera* Beverw. (8)  
*Stilbopeziza* Speg. (1)  
*Themisia* Velen. (8)  
*Tovariella* Syd. (1)  
*Trichohelotium* Killerm. (2)  
*Trizodia* Laukka (1)  
*Trullula* Ces. (15)  
*Waltonia* Saho (1)  
*Woodiella* Sacc. & P. Syd. (3)  
*Xeromedulla* Korf & W.Y. Zhuang (3)  
*Zugazaea* Korf, Iturr. & Lizoñ (1)

### Notes for alternative classification of *Leotiomycetes*

***Amorphothecaceae*** (= *Myxotrichaceae*) – Ekanayaka et al. (2019) placed this family under *Erysiphales*, considering its morphological similarity with other taxa in *Erysiphales*.

The authors accept the synonymy of *Myxotrichaceae* under *Amorphothecaceae* as the close phylogenetic relatedness of these two families were shown in the phylogeny provided in Ekanayaka et al. (2019) (A.H. Ekanayaka & K.D. Hyde).

***Calloriaceae* and *Pezizellaceae*** – In other classification systems, *Calloriaceae* and *Pezizellaceae* are members of *Helotiales*. Ekanayaka et al. (2019) placed *Calloriaceae* and *Pezizellaceae* under *Rhytismatales* based on their phylogeny. Johnston et al. (2019) placed these families within *Helotiales*. However, the placement of *Calloriaceae* is not clear. In addition, whereas *Pezizellaceae* was retrieved as a monophyletic family in the “pezizelloid clade” of the 15-gene tree, taxa from this family are polyphyletic in the ITS tree. In the present alternative classification for *Leotiomycetes* we accept these families under *Leotiomycetes* families *incertae sedis*, until we have more data to provide a stable classification (A.H. Ekanayaka & K.D. Hyde).

***Cenangiaceae*, *Chlorociboriaceae*, *Hemiphacidiaceae*, *Rutstroemiaceae*, *Sclerotiniaceae*** – Those families formed a well-supported distinct clade in Ekanayaka et al. (2019). Therefore, here we keep them in *Leotiomycetes* families *incertae sedis* until we have more data (A.H. Ekanayaka & K.D. Hyde).

***Cochlearomycetaceae*** – Within the phylogeny of Ekanayaka et al. (2019), this family clustered within *Leotiales*, and also Johnston et al. (2019) suggested its position should be within *Leotiales* based on their ITS phylogeny. As a result, we placed this family in *Leotiales* (A.H. Ekanayaka & K.D. Hyde).

***Cordieritidaceae*** – Taxa of this family differ from other *Helotiales* by having a unique ionomidotic reaction (solubility of excipular pigments in KOH). Hence, Jaklitsch et al. (2016) suggested a separate phylogenetic position for this family away from other *Helotiales*. In Johnston et al. (2019), this family clustered in the “sclerotinoid clade” within *Helotiales* in their 15-gene tree. In the phylogeny of Ekanayaka et al. (2019), however, this family grouped sister to

*Deltopyxidaceae* within *Cyttariales*. Therefore, here we place this family under *Cyttariales* until we have more data to confirm its placement (A.H. Ekanayaka & K.D. Hyde).

***Deltopyxidaceae*** – In the phylogeny of Ekanayaka et al. (2019), this family grouped sister to *Cordieritidaceae* with strong statistical support within *Cyttariales*. We are unable to compare with Johnston et al. (2019), as these authors did not include taxa from this family (A.H. Ekanayaka & K.D. Hyde).

***Erysiphales*** – In Ekanayaka et al. (2019), this order formed a distinct clade, while in Johnston et al. (2019) its placement was within *Helotiales* both in the genomic-scale and 15-gene trees. However, we believe that this order is distinct as it has a unique morphology, which differs from taxa in *Leotiomycetes*. Further studies are needed to resolve this inconsistency (A.H. Ekanayaka & K.D. Hyde).

***Leptodontidiaceae*** – This family sat in a well-supported clade away from *Helotiales* in the phylogeny provided by Ekanayaka et al. (2019). We cannot compare its placement with Johnston et al. (2019) as their phylogenies did not include taxa from this family. Therefore, we placed this family in *Leotiomycetes* families *incertae sedis* until more data are available to provide a stable classification (A.H. Ekanayaka & K.D. Hyde).

***Medeolariales*** – *Ascocorticiaceae*, *Ascodichaenaceae*, *Dermateaceae*, *Medeolariaceae* – Ekanayaka et al. (2019) accommodated these families in *Medeolariales* based on morphological similarities and phylogenetic analysis. In Johnston et al. (2019), *Dermateaceae* formed the basal-most clade within *Helotiales*. However, Johnston et al. (2019) did not include *Ascocorticiaceae*, *Ascodichaenaceae* and *Medeolariaceae* in their phylogeny, thus, we were unable to compare their placements in *Leotiomycetes*. Future studies are needed to resolve the placement of these families (A.H. Ekanayaka & K.D. Hyde).

***Neolauriomycetaceae*** – This family produces a well-supported clade within “Sclerotinales” in the phylogeny of Ekanayaka et al. (2019). We cannot compare its placement with Johnston et al. (2019) as their phylogenies did not include taxa from this family. Therefore, we placed this family under *Leotiomycetes* families *incertae sedis* until more data become available to provide a stable classification (A.H. Ekanayaka & K.D. Hyde).

***Multi-locus phylogenies and comprehensive treatments of the Xylariales*** (Author: M. Stadler)

Wendt et al. (2018) provided a multigene genealogy of the stromatic families of the *Xylariales*, including a significant number of representative species of the main lineages in the *Xylariaceae* and four DNA loci. This study resulted in the segregation of the *Xylariaceae sensu lato* in the traditional definition, and the *Hypoxylaceae* were resurrected and amended. Moreover, the genera *Biscogniauxia* and *Camillea* were transferred to the *Graphostromataceae*. The molecular phylogeny corresponds with the distribution of secondary metabolites and types of conidiogenous structures, while the ascospore morphology, which had traditionally constituted the salient feature to define the family, had to be abandoned. Notably, the *Lopadostomaceae* also contains genera with similar ascospores that had previously been accommodated in the *Xylariaceae sensu lato* and some genera like *Whalleya* and *Jumillera* were transferred to *Lopadostomataceae*.

Wendt et al. (2018) also proposed to exclude several genera of which no information on the asexual morph and no molecular data are available, from the *Xylariaceae* and place them at interim in *Xylariales incertae sedis*. Moreover, they resurrected the genus *Pyrenonopolyporus* for some species formerly placed in *Hypoxylon* with massive stromata and long tubular perithecia and segregated the new genus *Jackrogersella* from *Annulohypoxylon* as an outcome of their polyphasic study. Concurrently with the study by Wendt et al. (2018), Daranagama et al. (2018)

provided a very comprehensive overview on the families of the “stromatic” *Xylariales*, which roughly comprise the genera that had traditionally been classified in the *Xylariaceae* according to the traditional concept of the late 1990s, which was based on ascospore morphology. In the first comprehensive study of this type, they provided illustrations of most of the type species or other representative species and revised the history of their taxonomy. A molecular phylogeny was also presented, using data from additional taxa that represented genera that were not included in the paper by Wendt et al. (2018). Therefore, certain deviations from the concept were observed. In addition Daranagama et al. (2018) retained some genera in the *Xylariaceae* that were expelled from the family in the concurrent study. Helaly et al. (2018) reviewed the taxonomy, ecology and in particular the secondary metabolite production of the *Xylariales*. Even though no taxonomic novelties are provided in this paper, the records of endophytic and marine strains of *Xylariales* that had previously been reported in the literature to produce novel bioactive compounds were revised and numerous incongruities between the data published in chemistry journals and the current taxonomy were found. The authors gave an overview on the current taxonomic status of the taxonomy of the order in relation to the numbers of known metabolites and pointed out some genera and families that deserve further study as they seem to be hitherto unexplored. Recently, the genus *Dematophora* has been resurrected and divided from *Rosellinia* based on a comparison of molecular data, morphology of the asexual morphs and chemotaxonomic evidence (Wittstein et al. 2020), and all the serious pathogens like *D. necatrix* and *D. bunodes* now no longer belong to *Rosellinia*, which mainly comprises saprotrophic and endophytic species. Finally, Samarakoon et al. (2020) have recently found out that the sexual morph of the economically important endophytic genus *Muscodor* is close to *Induratia*, which was erected earlier and takes preference over the latter genus. They provided a polyphasic study involving a multi-locus phylogeny, divergence time estimations, morphological studies and comparison of volatile secondary metabolite profiles, which resulted in the recognition of a new family *Induratiaceae* in the order *Xylariales*. This family is sister to the *Xylariaceae* sensu stricto and also includes the genus *Emarcea*. All names in *Muscodor* were newly combined in *Induratia*, and two new species were described with their full life cycle, comprising both the asexual and sexual morph.

### **Placement and phylogenies of *Laboulbeniomycetes* (Author: D. Haelewaters)**

The placement of *Laboulbeniomycetes* has been traditionally problematic (Blackwell et al. 2020). First considered as cuticle hairs or even parasitic worms, life history studies and molecular phylogenetic analyses have helped in placing these fungi among filamentous *Ascomycota*. The first phylogenetic analysis of the class by Weir & Blackwell (2001) was based on SSU rDNA and supported the placement of *Laboulbeniales–Pyxidiophora* as a separate clade within *Ascomycota*, sister to *Sordariomycetes* although without statistical support for this sister relationship. Schoch et al. (2009) were the first ones to obtain support for the sister relationship between *Laboulbeniomycetes* and *Sordariomycetes* based on a six-locus dataset. Their results were later confirmed by Goldmann & Weir (2018) as well as Haelewaters et al. (2019b) who proposed the informal taxon ‘laboulbeniomyceta’ as a descriptor of the most recent common ancestor of both classes.

To date, limited sequence data are available for members of *Laboulbeniomycetes*. An NCBI GenBank search for ‘*Laboulbeniomycetes*’ resulted in 727 sequences only, the majority of which are SSU sequences (17 February 2020). An SSU-based phylogeny by Goldmann & Weir (2018) including 65 isolates resulted in evidence for multiple clades in the class. Haelewaters et al. (2019b), based on a three-locus dataset with 61 isolates, described the third order in the class, *Herpomycetales*, to accommodate the genus *Herpomycetes*. Blackwell et al. (2020) presented a phylogenetic reconstruction of the *Laboulbeniomycetes* from a concatenated SSU–LSU dataset of 75 isolates and found high support for 5 clades: orders *Herpomycetales*, *Laboulbeniales* and *Pyxidiophorales*, in addition to two unnamed clades, *Chantransiopsis* clade (*Chantransiopsis* sp., *Tetrameronycha* spp., *Subbaromyces splendens*) and *Laboulbeniopsis* clade (with *Laboulbeniopsis termitarius*). Finally, several recent studies have pointed at the polyphyly of accepted higher taxa

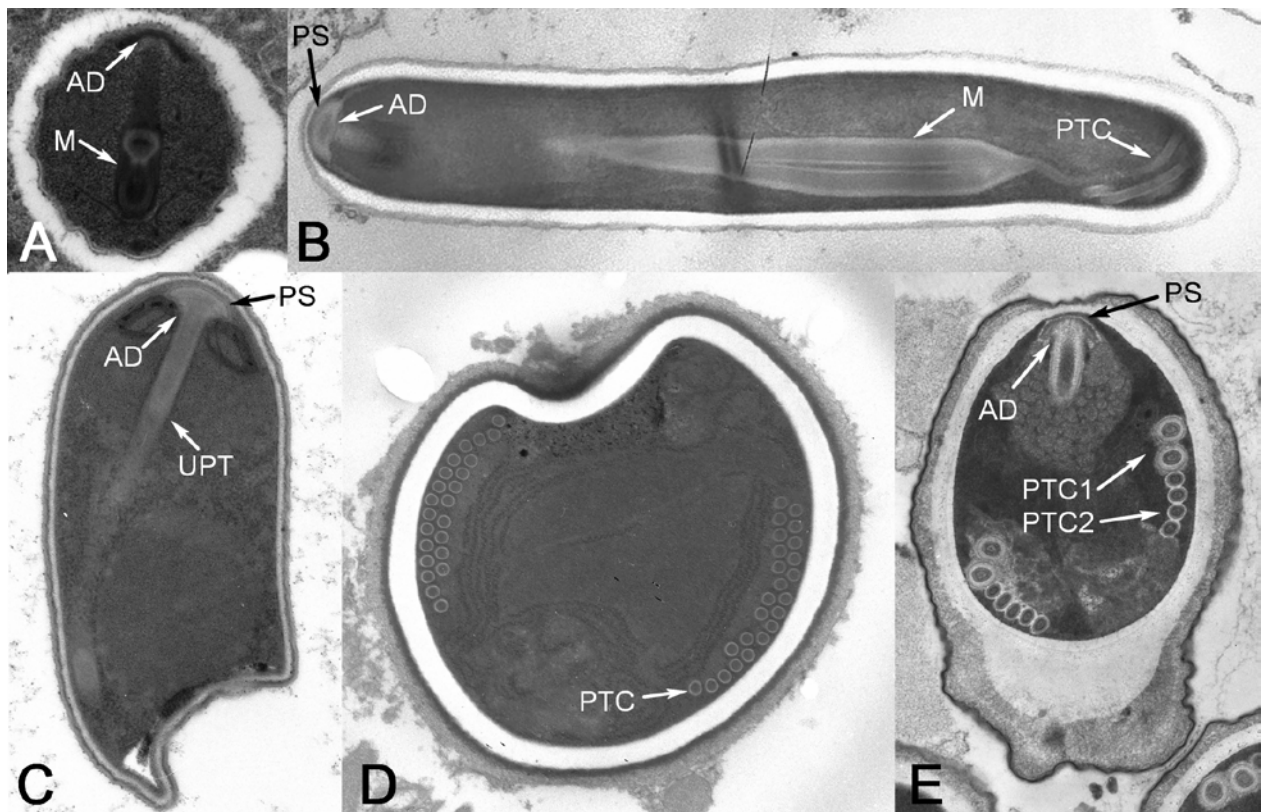
in the *Laboulbeniales* order (Goldmann & Weir 2018, Haelewaters et al. 2018b), and so future integration of molecular data will undoubtedly change the classification of the order and by extension the whole class.

### **Structural and functional organization of *Microsporidia* (Author: Yuri S. Tokarev)**

*Microsporidia* is a monophyletic group of highly specialized intracellular parasites which are ultimately dependent upon and being able to develop only within the host cell (Vavra & Lukes 2013). *Microsporidia* infect *Metazoa* and some protists: *Gregarina*, *Ciliata*, *Paramyxea* (Fokin et al. 2008, Sokolova et al. 2013, Larsson 2014, Cali et al. 2017, Stentiford et al. 2017). Host switching between representatives of different families (Ghani et al. 2013, Malysch et al. 2018a, 2019), orders (Schuld et al. 1999, Ovcharenko et al. 2017, Malysch et al. 2018b), classes (Hinney et al. 2016) and phyla may occur (Franzen et al. 2006, Ironside et al. 2008, Nylund et al. 2010, Choudhary et al. 2011, Meissner et al. 2012). Parasite-host interactions are diverse, ranging from asymptomatic presence in the form of a latent infection to devastating epizootics especially in arthropods and fishes (Bader et al. 1998, Stentiford et al. 2013, Sokolova et al. 2015, Yu et al. 2019). Routes of transmission include alimentary and transovarial/ transplacental infection, transfer from host to host by parasites etc. (Becnel & Andreadis 1999, Dunn & Smith, 2001, Didier et al. 2004, Wang-Peng et al. 2018).

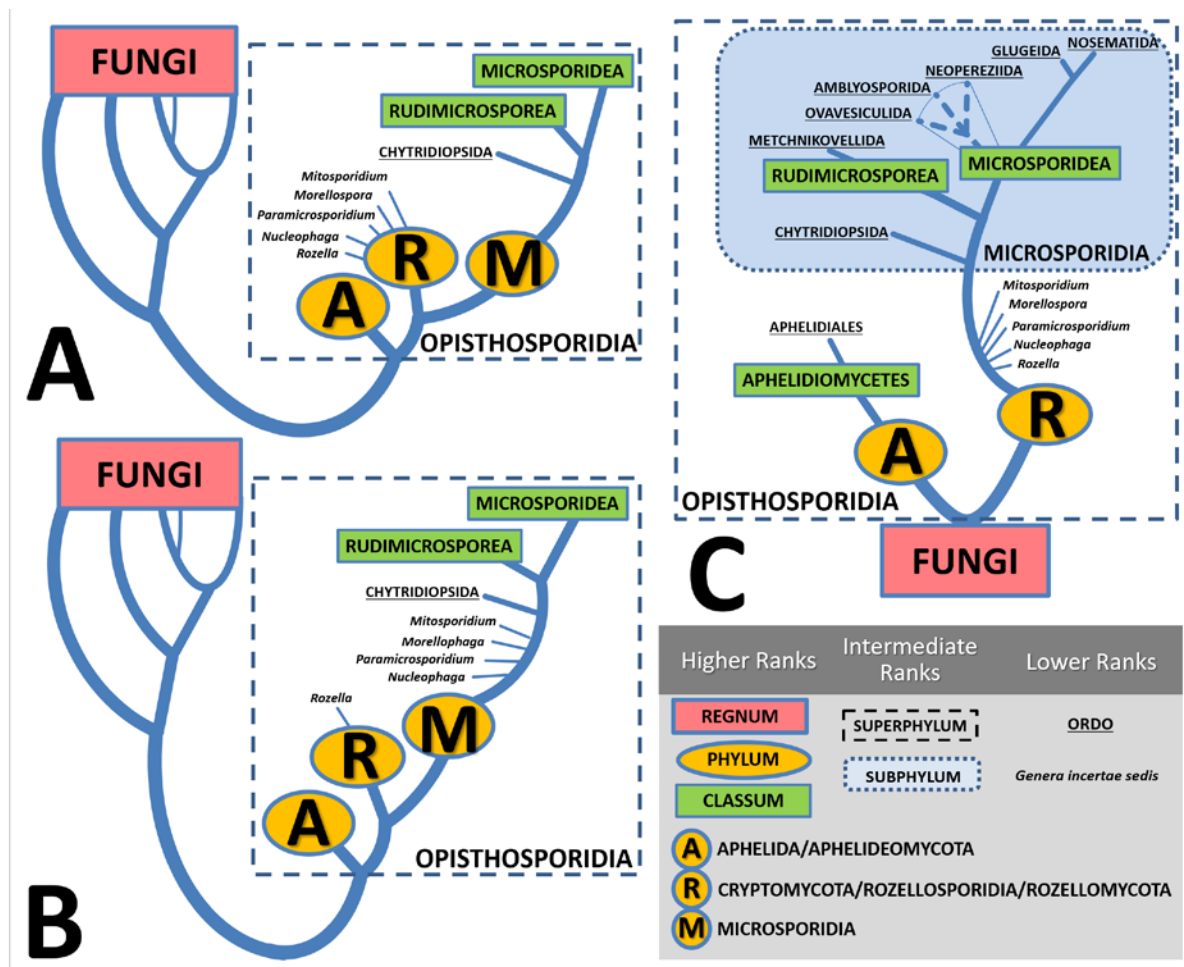
Typical life cycle includes merogonial (for parasite multiplication) and sporogonial sequence (for multiplication and spore formation). The cells multiply either by binary or multiple fission. The merogonial developmental stages are single cells or plasmodia delineated with a plasma membrane (Dunn & Smith 2001). In early sporogonial stages, cytoplasm becomes more condensed, electron dense material is deposited on the cell surface which further transforms into the spore wall. Other primordial spore structures emerge in late sporogonial stages (Issi et al. 2012a, Sokolova et al. 2015, Cali & Takvorian 2014). The nuclear apparatus is mono- or diplokaryotic, the number of nuclei varies from one to many (in plasmodia). In some species the transformation of the nuclear apparatus from one type to another one takes place (sometimes accompanied by meiosis) in the course of life cycle (Lee et al. 2014). The parasites develop either in direct contact with the host cell cytoplasm or within a parasitophorous vacuole which is derived from the membranes of endoplasmic reticulum, Golgi complex or nuclear envelope of the host cell (Bohne et al. 2011, Issi et al. 2012b, Vavra & Lukes 2013).

The spore is a specialized parasite cell which serves for invasion into the host cell, dissemination over the host organism and spreading within the host population (Vavra & Lukes 2013). The spore wall is a complex chitin- and protein-rich structure consisting of inner electron-translucent endospore layer with an underlying plasma membrane and outer electron-dense exospore layer (Bigliardi & Sacchi 2001). The main distinctive feature of microsporidia spore is the extrusion apparatus, which includes polar tube (polar filament), polar cap (polar sac – anchoring disc complex), polaroplast and posterior vacuole (Fig. 2) (Vavra & Larsson 2014). The polar tube is attached to the apical pole of the spore by the polar cap (Franzen 2004, Xu & Weiss 2005). The length, diameter and structure of polar tube vary greatly among species. Most often, the polar tube is thin and long, exceeding the length of the spore, with proximal and distal parts straight and coiled, respectively (Delbac & Polonais 2008, Issi et al. 2012a).



**Figure 2** – Spore structure of *Microsporidia* with different types of polar tube. A *Metchnikovella incurvata* with a manubrial polar tube. B *Mrazekia macrocyclopis* with a manubrial polar tube containing a coiled distal part. C *Helmichia lacustris* with an uncoiled polar tube (UPT). D *Neoperezia* sp. with numerous coils of isofilar polar tube. E *Crepidulospora beklemishevi* with anterior (PTC1) and posterior (PTC2) polar tube coils of different structure and size. AD – anchoring disc; M – manubrium; PS – polar sac; PTC – polar tube coils. Figs 2A, 2E are reproduced with a kind permission of Yuliya Y. Sokolova (Institute of Cytology RAS, St. Petersburg, Russia) and Anastasia V. Simakova (Tomsk State University, Tomsk, Russia), respectively.

The number of coils ranges from 3 to 30. In isofilar polar tube, the diameter is the same throughout the tube length. It is either coiled (Fig. 2D) or uncoiled (Fig. 2C), as its length exceeds or do not exceed the spore length, respectively (Issi et al. 2012a, Tokarev et al. 2012). In anisofilar polar tube, several posterior coils are of lesser diameter and sometimes of different electron density (Tokarev et al. 2010). In heterofilar polar tube, the anterior coils are remarkably bigger as compared to the posterior ones and their structure is different (Fig. 2E) (Vavra & Larsson 2014). The manubrium is thick and short, not exceeding the spore length, cylindrical, usually thicker at central or distal ‘bulbal’ part, which is interconnected with manubrial cisternae associated with vesicles and/or short tubules (Fig. 2A) (Issi et al. 2010, Sokolova et al. 2013). Another type of polar tube is clavate, which is thick and short, not exceeding the spore length, thicker at distal ‘bulbar’ part, which is continued into thin polar tube with several coils (Fig. 2B). This clavate polar tube is sometimes referred to as “manubrium” (Issi et al. 2010, which is not correct. The manubrium is present in Rudimicrosporea (Sokolova et al. 2013), being different in its structure and supposed to be a primitive form of the canonical polar tube of higher *Microsporidia* (Vivier 1975). The polaroplast is a lamellar or vesicular (or combined), occupying the anterior part of the spore and surrounding the straight part of the polar tube (Vavra & Larsson 2014). Its function is unclear and participation in extrusion process is supposed. The spores are formed as separate units (“free spores”) or by packets enclosed within a common envelope of parasite origin, so called sporophorous vesicle (Dunn & Smith 2001, Sokolova et al. 2015).



**Figure 3** – Alternative hypotheses of phylogenetic and taxonomic relationships within Fungi-like representatives of *Aphelida* (*Aphelidiomycota*) – *Rozellomycota* (*Rozellida/ Cryptomycota/ Rozellosporidia*) – *Microsporidia* (ARM) clade and its relations to *Fungi*. The schematic phylogenetic trees follow the recent phylogenetic reconstructions by Karpov et al. (2014), Tedersoo et al. (2018), Bass et al. (2018), Corsaro et al. (2019, 2020). Three alternative schemes are presented as nowadays there is no consensus among the specialists. A Karpov et al. (2014) proposed the superphylum *Opisthosporidia* for the ARM clade, which was considered as a sister to *Fungi*. Several new genera related to *Rozella* and *Microsporidia* have been added to the tree more recently (Corsaro et al. 2014a, b, 2016, 2019, 2020, Haag et al. 2014). B In the interpretation of Bass et al. (2018) the boundaries of *Microsporidia* should be expanded to include all these genera except *Rozella*. C According to Tedersoo et al. (2018); Wijayawardene et al. (2018) ARM clade should be included into kingdom *Fungi*, and phylum *Microsporidia* should be merged with *Rozellomycota*. To further conserve *Microsporidia* as a monophyletic taxon within *Rozellomycota* it has been redefined as a subphylum. The labels for taxon ranks and phyla abbreviations are explained in the right lower corner. The synonymic names for the phyla are indicated: *Aphelidiomycota* Tedersoo et al 2018 = *Aphelida* Karpov, Aleoshin & Mikhailov 2014 = *Rozellida* Lara, Moreiro, López-García, 2010 = *Rozellomycota* James & Berbee, 2011 emend. Corsaro & Michel 2014 = *Cryptomycota* Jones & Richards 2011 emend. Karpov & Aleoshin 2014 = *Rozellosporidia* Karpov, Torruella, Moreira, Mamkaeva, López-García 2017.

Many of the basic physiological functions and biochemical processes in *Microsporidia* are reduced as they mostly rely on the host cell. As a result of deep adaptation to intracellular parasitism, structural organization of prespore stages is simplified, and many biochemical

pathways are absent. Basic nutrients are imported from the host cell including ATP (Tsaousis et al. 2008). The physiological processes in the host cell are altered and can be managed by the actively proliferating parasites to provide the latter with enough nutrients including sugars, amino- and fatty acids (Cuomo et al. 2012, Senderskiy et al. 2014). Exploitation of host cell metabolic pathways results in reorganization of host cell organelles: mitochondria, endoplasmic reticulum and Golgi complex, which come into contact with the parasite cells (Simakova et al. 2005, Tokarev et al. 2010, Issi et al. 2012b, Vavra & Lukes 2013). Other adaptations to survival within the host cell include alteration of host cell cycle, suppression of host cell apoptosis (Martin-Hernandez et al. 2017, Sokolova et al. 2019) and renewal of infected epithelial cells (Issi 1986).

Mitochondria are reduced to mitosomes which lack genome (Williams et al. 2002). Vesicular transport of cargo proteins is absent (Beznoussenko et al. 2007). The genomes of *Microsporidia* are reduced and compact, many genes and gene families are lost and the sequences of ribosomal RNA and protein-coding genes are shortened and highly derived (Peyretailade et al. 2015). The genome size is ranged from 2.3 to ~50 Mb, in the vast majority of sequenced species it does not exceed 15 Mb (Keeling et al. 2014).

### **Phylogenetic approaches and current status of *Rozellomycota*** (Author: Yuri S. Tokarev)

With the advent of molecular phylogeny studies, major groups within *Microsporidia* Tree of Life were primarily recognized and polyphyletic nature of traditional high rank taxa was demonstrated (Fig. 3) (Vossbrinck & Debrunner-Vossbrinck 2005, Vossbrinck et al. 2014). Later on, some basal or sister groups of parasites were examined using molecular phylogenetic and phylogenomic approaches. In particular, relationships between *Aphelida*, *Rozellomycota* and *Microsporidia* were established (Karpov et al. 2014). Several new representatives of *Rozellomycota* were discovered and examined (Haag et al. 2014, Corsaro et al. 2014a, b, 2016, Quandt et al. 2017). Genome surveys of *Metchnikovellida* were provided (Mikhailov et al. 2016, Galindo et al. 2018) confirming basal position of this lineage within *Microsporidia* and demonstrating shared genomic signatures with other *Microsporidia*. Notably, the order of *Metchnikovellida* was always referred to as “primitive *Microsporidia*” (class *Rudimicrosporea*) on the basis of ultrastructural features, such as poorly developed or absent polaroplast and absent posterior vacuole as well as specific structure of polar tube, so called manubrium. Finally, phylogenetic position of *Chytridiopsis typographi* (order *Chytridiopsida*) was also resolved (Corsaro et al. 2019), showing more basal position than *Metchnikovellida*. In this parasite species, only the sequences of rRNA genes are available, showing less compact organization as compared to other *Microsporidia*. In addition, spore structure of *C. typographi* is described as “unique” as compared to other *Microsporidia* (Purrini & Weiser 1985) and essentially, the developmental sequence of *C. typographi* includes a unique budding stage, unknown for other species of *Microsporidia*, which multiply by fission of cells only (Tonka et al. 2010). Thus, ultrastructural and developmental traits support the basal position of *Chytridiopsida* inferred in the phylogenetic reconstructions. Here the order *Chytridiopsida* includes the composition of the families and genera suggested by Larsson (2014) with exclusion of *Burkeidae*, which is less similar to the chytridiopsids and was attributed to this group only temporarily. The mentioned taxon is provisionally placed to *Microsporidia genera incertae sedis* as possessing more canonical ultrastructure.

Recently, Bass et al. (2018) proposed taxonomic expansion of *Microsporidia* to include unclassified genera of *Cryptomycota* (*Rozellomycota*). This assumption was based upon monophyletic arrangement of *Microsporidia* and sister taxa, though the vast majority of sequences used in that analysis were short (below 400 bp). We prefer to preserve *Microsporidia* as a more compact group unless more robust phylogenies are available. Thus, such representatives of *Rozellomycota* as *Nucleophaga*, *Paramicrosporidium*, *Morellospora* and *Mitosporidium* are not considered here as *Microsporidia*.

Upon following the ranking of Tedersoo et al. (2016) who proposed *Rozellomycota* (including *Microsporidia*) and *Aphelidiomycota* as phyla in Kingdom *Fungi*, the phylum



*Microsporidia* becomes obsolete. To recognize this group as a monophyletic lineage of highly specialized intracellular parasites with specific developmental, structural and genetic features (see above, Structural and functional organization of *Microsporidia*), we propose an intermediate rank of subphylum for this taxon. The superphylum *Opisthosporidia* proposed by Karpov et al. (2014) is also retained to include *Aphelidiomycota* and *Rozellomycota*. However recent transcriptomic data provide poor support for the monophyly of *Opisthosporidia* (Toruella et al. 2018), and in future the aphelids may be excluded and the higher ranks may be again reshuffled.

The *Microsporidia* Tree of Life consists of five major clades (Vossbrinck & Debrunner-Vossbrinck 2005, Vossbrinck et al. 2014). To accommodate these clades within a formal class-order-family system, the following changes to the taxonomy of *Microsporidia* are proposed. Orders *Dissociodihaplophasida* and *Meiodihaplophasida* are suppressed as polyphyletic. Orders *Glugeida* and *Nosematida* are redefined for the purposes of the current revision. Three new orders, *Amblyosporida* ord. nov., *Neopereziida* ord. nov. and *Ovavesiculida* ord. nov. are introduced in this study. All these orders are referred to as distinct monophyletic clades of the *Rozellomycota* Tree of Life, each presented by the type family: *Glugeidae*, *Nosematidae*, *Amblyosporidae*, *Neopereziidae* and *Ovavesiculidae*, respectively, and related taxa. Order *Chytridiopsidea* is excluded from *Microsporidia* (see the outline) and family *Enterocytozoonidae* is transferred to *Nosematida*. Allocation of order *Metchnikovellida* to class *Rudimicrosporea* is also supported.

Each phylogenetic lineage corresponding to the taxa of class, order or family rank contains representatives with diverse features. This makes it difficult to define these taxa using developmental, structural or ecological features, so that primary taxonomic allocation of species is based upon phylogeny.

#### **Classification of *Glomeromycota* (Authors: B.T. Goto & N. Wijayawardene)**

Outline of arbuscular mycorrhizal fungi (AMF) was initially organized in Gerdemann & Trappe (1974) and updated by Schenck & Pérez (1990). Initially, AMF fungi have been included in one order (i.e. *Glomerales*) in *Zygomycota* (Morton & Benny 1990). However, Schüßler et al. (2001) established new phylum, *Glomeromycota* to accommodate AMF. Since Schüßler et al. (2001), taxonomy of AMF has been rapidly updating over the last years (Oehl et al. 2011a, b, c, d, e, f, Goto et al. 2012, Błaszczowski et al. 2015, 2018a, b, 2019a, b, Corazon-Guivin et al. 2019a, b, Jobim et al. 2019). Oehl et al. (2008) introduced *Dentiscutataceae*, *Racocetraceae* and *Scutellosporaceae* and later Oehl et al. (2011b) introduced *Gigasporales*, to include these families along with *Gigasporaceae*. At the same time, Oehl et al. (2011b) introduced two new classes (i.e. *Archaeosporomycetes* and *Paraglomeromycetes*) thus currently *Glomeromycota* comprises three classes.

Morton & Msiska (2010) did not recognize families introduced in Oehl et al. (2008) and *Gigasporales* was not accepted in Wijayawardene et al. (2018b). Nevertheless, phylogenetic reconstructions using different genes (TUB2, RPB1, ITS, SSU and LSU rRNA) (e.g. Goto et al. 2012, Mello et al. 2012, Silva et al. 2012, Marinho et al. 2014, de Souza et al. 2018, Tedersoo et al. 2018) supported the monophyletic nature of the families and or genera proposed by Oehl et al. (2008). Hence, we conclude that higher level classification of families in *Glomeromycota* is debatable. Therefore, in this study, we include an alternative classification for *Glomeromycota* which was included in Wijayawardene et al. (2018b).

#### **Alternative classification for *Glomeromycota***

***Glomeromycota*** C. Walker & A. Schüßler

***Archaeosporomycetes*** Sieverd., G.A. Silva, B.T. Goto & Oehl

***Archaeosporales*** C. Walker & A. Schüßler

***Ambisporaceae*** C. Walker, Vestberg & A. Schüßler

*Ambispora* C. Walker, Vestberg & A. Schüßler (10)

**Archaeosporaceae** J.B. Morton & D. Redecker

*Archaeospora* J.B. Morton & D. Redecker (= *Intraspora* Oehl & Sieverd.) (3)

*Palaeospora* Oehl, Palenz., Sánchez-Castro & G.A. Silva (1)

**Geosiphonaceae** Engl. & E. Gilg

*Geosiphon* F. Wettst. (1)

**Glomeromycetes** Caval.-Sm.

**Diversisporales** C. Walker & A. Schüßler

**Acaulosporaceae** J.B. Morton & Benny

*Acaulospora* Gerd. & Trappe (= *Kuklospora* Oehl & Sieverd.) (57)

**Diversisporaceae** C. Walker & A. Schüßler

*Corymbiglomus* Błaszk. & Chwat (2)

*Desertispora* Błaszk., Kozłowska, Ryszka, Al-Yahya'ei & Symanczik (1)

*Diversispora* C. Walker & A. Schüßler (18)

*Otospora* Oehl, Palenz. & N. Ferrol (1)

*Redeckera* C. Walker & A. Schüßler (3)

*Tricispora* Oehl, Sieverd., G.A. Silva & Palenz. (1)

**Gigasporaceae** J.B. Morton & Benny

*Bulbospora* Oehl & G.A. Silva (1)

*Cetraspora* Oehl, F. A. Souza & Sieverd. (6)

*Dentiscutata* Sieverd., F.A. Souza & Oehl (7)

*Gigaspora* Gerd. & Trappe (7)

*Intraornatospora* B.T. Goto, Oehl & G.A. Silva (1)

*Paradentiscutata* B.T. Goto, Oehl & G.A. Silva (2)

*Racocetra* Oehl, F.A. Souza & Sieverd. (14)

*Scutellospora* C. Walker & F.E. Sanders (21)

**Pacisporaceae** C. Walker, Błaszk., A. Schüßler & Schwarzott

*Pacispora* Sieverd. & Oehl (6)

**Sacculosporaceae** Oehl, Sieverd., G.A. Silva, B.T. Goto, Sánchez-Castro & Palenz.

*Sacculospora* Oehl, Sieverd., G.A. Silva, B.T. Goto, I.C. Sánchez & Palenz. (2)

**Glomerales** J.B. Morton & Benny

**Claroideoglomeraceae** C. Walker & A. Schüßler

*Claroideoglomus* C. Walker & A. Schüßler (8)

**Glomeraceae** Piroz. & Dalpé

*Dominikia* Błaszk., Chwat & Kovács (13)

*Funneliformis* C. Walker & A. Schüßler (16)

*Glomus* Tul. & C. Tul. (55)

*Halonatospora* Błaszk., Niezgoda, B.T. Goto & Kozłowska (1)

*Kamienskia* Błaszk., Chwat & Kovács (1)

*Oehlia* Błaszk., Kozłowska, Niezgoda, B.T. Goto & Dalpé (1)

*Rhizoglomus* Sieverd., G.A. Silva & Oehl (19)

*Rhizophagus* P.A. Dang. (ca. 19)

*Sclerocystis* Berk. & Broome (10)

*Sclerocarpum* B.T. Goto, Błaszk., Niezgoda, Kozłowska & Jobim (1)

*Septoglomus* Sieverd., G.A. Silva & Oehl (10)

*Simiglomus* Sieverd., G.A. Silva & Oehl (1)

**Glomeromycetes** genus *incertae sedis*

*Entrophospora* R.N. Ames & R.W. Schneid. (3)

**Paraglomeromycetes** Oehl, G.A. Silva, B.T. Goto & Sieverd.

**Paraglomerales** C. Walker & A. Schüßler

**Paraglomeraceae** J.B. Morton & D. Redecker

*Paraglomus* J.B. Morton & D. Redecker (1)

*Innospora* Błaszk., Kovács, Chwat & Kozłowska (7)

**Pervetustaceae** Błaszk., Chwat, Kozłowska, Symanczik & Al-Yahya'ei

*Pervetustus* Błaszk., Chwat, Kozłowska, Symanczik & Al-Yahya'ei (1)

**Oomycota** (Author: M. Thines, with contributions from H.P. Grossart)

Traditionally, the *Oomycota* (from Greek *ὠάριο* (egg) and *μύκης* (fungus) and were treated with other osmotrophic aseptate organisms in the polyphyletic "*Phycomycetes*". However, already at the turn from the 19<sup>th</sup> to the 20<sup>th</sup> century, it was known that the oomycetes differed in various aspects, and chlor-zinc-iodine solution, which gives a blue staining with cellulose, was widely used to identify oomycete thalli in their hosts (e.g. Petersen 1905). Already in 1939, just one year, after the first electron microscope became commercially available, Vlk (1939) reported that the zoospores of *Saprolegnia* did not resemble motile spores of fungi, but rather of heterokont algae. Since then, it was widely recognised that oomycetes belonged within heterokonta, which were suggested as an independent kingdom by Leedale (1974), largely congruent with the kingdom *Straminipila*, introduced by Dick (2001). By emphasizing periplastid protein targeting, cytoskeletal and periplastid evolution, Cavalier-Smith 2018 proposed a new classification, assuming that *Heterokonta*, *Alveolata*, *Rhizaria*, and *Hacrobia* (cryptophytes and haptophytes) are a monophylum which could be recognized as a re-circumscribed kingdom *Chromista*. However, there is still some controversy on the precise phylogenetic relationships between the different groups, in particular haptophytes and cryptomonads may not belong together with the heterokonts or the SAR clade, but be associated with the Archaeplastida (Burki et al. 2007, 2016).

Thus, oomycetes are currently best placed in the kingdom *Straminipila* and its phylum *Oomycota*. The kingdom *Straminipila* forms a major line of eukaryotes (e.g. van den Hoek et al. 1995) currently containing more than 25,000 known species, most of which belong to the two major phyla with photosynthetic members, *Phaeophyta* and *Bacillariophyta*. The osmotrophic *Oomycota* are, with about 1700 recognised species, the next largest phylum of the *Straminipila*. The main characteristic of the *Straminipila* is the formation of stiff hairs, one of the two flagella, which strengthens and reverses its thrust, rendering oomycete spores excellent swimmers. These stiff "straw hairs" gave their name to the whole group, derived from "stramen" (straw) and "pilus" (hair). The majority of the species of the *Oomycota* are parasitic (Beakes & Thines 2017), with *Phytophthora infestans*, the organism that triggered the Irish Potato Famine, being its most prominent member (Yoshida et al. 2013). Most *Oomycota* show an asexual reproduction via zoospores formed in zoosporangia or, in case of some genera of the obligate biotrophic downy mildes, such as *Peronospora*, *Hyaloperonospora*, and *Bremia*, via multinucleate, wind-dispersed conidiosporangia. Apart from the holocarpic oomycetes, in which the entire thallus is converted into a zoosporangium, asexual sporangia and conidiosporangia are formed by specialized parts of the mycelium, i.e. sporogenous hyphae, sporangiophores or sporangiohores (Beakes & Thines 2017). The holocarpic nature is the ancestral form for the whole group, but likely derived in members of *Lagenidiales* (Buaya & Thines 2020). Sexual reproduction in most of the species of the crown classes, *Peronosporomycetes* and *Saprolegniomycetes*, is by oogamy (gametangiogamy), whereby the zygote often converts into a thick-walled resting spore. However, in many species of the *Leptomitales* sexual reproduction is cryptic, e.g. by zoomeiospore fusion in

*Lagenisma coscinodisci* (Schnepf et al. 1977). *Leptomitales* are also unusual in that some have a significant amount of chitin in addition to glucans and cellulose in their cell walls (Lin & Aronson 1970). The orders of the oomycetes that branch before the crown classes are, with the exception of *Haliphthorales* not forming an extended hyphal network but, apart from the fragmenting thalli in some members of *Pontismatales* (Buaya et al. 2019), only simple globose to sacculate thalli that convert into zoosporangia. The oospore-like resting structures formed by *Olpidiopsidales* are likely reflecting convergent evolution to the crown groups. The oomycetes have likely originated in the marine environment more than 500 million years ago, have colonised limnic and terrestrial habitats several times independently and are now found in almost any environment in which eukaryotic organisms thrive (Marano et al. 2016). Most of the known species belong to the probably monophyletic downy mildews (Sharma et al. 2015), which are obligate biotrophic plant parasites that are similar to other obligate parasite groups, have diversified by host jumps, radiation and subsequent speciation (Choi & Thines 2015, Thines 2019). However, it can be assumed that across all oomycete groups only a small fraction of the existing species are known.

#### ***Myxomycetes*** (Author: D. Leontyev)

Even the limited phylogenetic data currently available support the conclusion that some very conspicuous characters traditionally considered as important for the classification of myxomycetes have evolved several times independently. This is the case for both the formation and reduction of the stalk and the capillitium, the crystallization of lime deposits, and the evolution of compound fruiting bodies (Leontyev et al. 2014, Leontyev & Schnittler 2017). All of these characters were used in the traditional system of classification to delimit genera, families and even orders (as was the case for the order *Liceales s. l.*, which was characterized by the absence of capillitium). However, in the light of the phylogenetic data, other characters appear to be better predictors of evolutionary relationships than the traditional criteria. These are, for example, the attachment of the capillitium to the peridium, details of stalk formation, color of the spore mass, or the presence of spore-like cells within the stalk. These new criteria were used to provide emended descriptions for some of the traditional myxomycete taxa in the recently published classification by Leontyev et al. (2019).

#### ***Dictyostelids*** (Author: D. Leontyev)

The new system of classification for dictyostelids works well for the genus level; however, it relies on 18S gene markers to distinguish species, and this does not always separate out some morphologically similar but genetically different taxa. Moreover, *Coremiostelium* and *Synstelium* still occupy a problematic position in the entire phylogeny (Sheikh et al. 2018). A consideration of morphological characteristics is essential for evaluating new species of dictyostelids. Identifying new genetic markers to use for distinguishing dictyostelids at the species level would be exceedingly worthwhile.

#### **Hidden taxa of the fungal tree of life** (Authors: F.Q. Brearley & D. Haelewaters)

Whereas four to five million species of fungi are estimated to be found across the globe, we have only described around 144,000 of these (i.e. less than 2%) (Willis et al. 2018). The question remains where are all these fungi yet to be described can be found? Lücking (2017) suggest that these missing fungi will be found in: **i)** habitats that are naturally diverse yet poorly explored, e.g., tropical forests; **ii)** cryptic taxa, those that are morphologically indistinguishable; and **iii)** in fungal collections that might contain cryptic or new species hidden under current names. These three categories are not mutually exclusive and, with the rapid rise of next-generation sequencing, we can also add **iv)** molecular novelties. A final category that is often neglected is the study of natural history collections of organisms other than fungi (plant herbaria, dried insect collections).

Large collections of dried, pinned insects have been dubbed “treasure troves” for the study of ectoparasitic fungi, such as the *Laboulbeniales* (*Laboulbeniomycetes*). During a study of different systematic insect collections around the world, *Laboulbeniales* fruit bodies were

discovered on 1,937 of 45,785 specimens (Haelewaters & Rossi 2017). This and other insect collections-based works have led to the description of multiple new species (e.g., Santamaria et al. 2016, Haelewaters & Rossi 2017), a better understanding of host usage patterns and global number of *Laboulbeniales* species (Weir & Hammond 1997), and estimates of parasite prevalences on a given host through time (Haelewaters et al. 2017). Likewise, plant herbaria can be screened for fungal “hitchhikers” inadvertently sampled along with the plant host (Lang et al. 2019). Examples are the causal agent of potato late blight (*Phytophthora infestans*), rust fungi, downy mildews, etc. Herbarium specimens allow for identification of fungal strains based on morphology and DNA sequence data, which can be coupled with host plant studies to provide a complete overview of host-pathogen dynamics.

Given that fungi are often microscopic, morphologically similar among species, occupy hidden habitats, and are often recalcitrant in axenic culture, it is difficult to find them, but perhaps they are simply ‘hiding’ in material already collected. Lücking et al. (2014) found that a single species of *Cora* was actually more than one-hundred species following more careful morphological observation and sequencing. This restudy/resequencing of currently known taxa is likely to increase the number of known species. An increasing number of examples of cryptic diversity is coming to light with the advances of molecular phylogenetic studies, in different groups, e.g., *Eurotiomycetes* (Pringle et al. 2005), *Laboulbeniomycetes* (Haelewaters et al. 2018a), *Lecanoromycetes* (Singh et al. 2015) and *Leotiomycetes* (Grünig et al. 2008) in *Ascomycota*; *Agaricomycetes* (Stefani et al. 2014, Accioli et al. 2019), and *Ustilaginomycetes* (Li et al. 2017) in *Basidiomycota*.

Because of the decreasing price and increasing availability, large-scale sequencing studies offer the opportunity to mined data for new species. These large-scale sequencing studies offer the opportunity to find new species as such studies regularly have a sizeable proportion of sequences that can only assigned at a phylum or even kingdom level. Indeed, the rate of accumulation of novel/unassigned sequences is massively outpacing the rate with which taxonomists can describe new species, especially given the lack of taxonomic expertise among, for example, the basal fungal clades.

Whilst some have called for a sequence-based taxonomy (Hibbett et al. 2016) we recognise that this is a controversial subject and, instead, note that these sequences can be used in a ‘taxonomic feedback’ capacity to identify new taxa. For example, Rosling et al. (2011) and Jones et al. (2011) described the class of ubiquitous soil-inhabiting fungi, the *Archaeorhizomycetes*, and the basal fungal phylum the *Cryptomycota*, respectively. Capitalising on the global sequencing of soil samples by Tedersoo et al. (2014), Tedersoo et al. (2017) re-analysed samples and found nearly 40 strongly supported new clades (roughly equivalent to orders) in the fungal tree of life. About half of these were in the basal clades (particularly *Rozellomycota*) and about half were found in tropical habitats. This study looked at soil samples only but fungi associated with other habitats such as aquatic fungi or endophytic fungi would benefit from further study – aquatic habitats may be particularly rich in new clades and taxa given the association of basal clades with aquatic habitats. The rich resource of DNA extracted from the millions of plant leaves stored in herbaria can also be fruitfully mined to find new plant-associated fungi (e.g. Datlof et al. 2017, Daru et al. 2018).

Another possibility is that the molecular markers we are currently using are not sufficient to delineate the full range of ‘species’ (OTUs, RSVs etc.) – this is certainly the case for *Glomeromycota* where the ITS region is not sufficiently phylogenetically informative and development and comparison of suitable primers has occupied a lot of energy (e.g. Kohout et al. 2014).

Whilst some have called for a molecular taxonomy, we recognise that this is controversial and, as yet, not incorporated into relevant taxonomic codes. Therefore, discovery of new physical specimens is required and the work of Henkel et al. (2012) and Hyde et al. (2018b) illustrate how dedicated work of mycologists over a number of years can lead to the discoveries and descriptions of numerous new fungal species. Indeed, Truong et al. (2017) show how this can be done with

straightforward short collecting expeditions of underexplored habitats (*Nothofagus* forest of South America in this case) combined with taxonomic work and sequencing of relevant material to advance our knowledge of fungal diversity in a comprehensive way.

## Notes

### *Abrothallus* De Not.

The phylogenetic reconstruction by Suija et al. (2015) showed that *Abrothallus* accommodates the monotypic *Epinephroma* Zhurb. and made a new combination based on that. Pérez-Ortega et al. (2011) showed that *Vouauxiomyces* Dyko & D. Hawksw. represents an asexual stage of *Abrothallus*. Synonymization with *Abrothallus* was done in Rossman et al. (2016) (A. Suija).

### *Abrothallaceae* Pérez-Ort. & Suija

Diederich et al. (2018) proposed to synonymize *Licheniconiaceae* with *Abrothallaceae* as several studies beforehand (e.g. Liu et al. 2017) have revealed close relationships of these two monotypic families. However, Hngsanan et al. (2020) accepted *Licheniconiaceae* over *Abrothallaceae* (A. Suija & N. Wijayawardene).

### *Acrodictyaceae* J.W. Xia & X.G. Zhang

Xia et al. (2017) established *Acrodictyaceae* and *Junewangiaceae* in *Sordariomycetes* (J. Ma).

### *Acrogenosporaceae* Jayasiri & K.D. Hyde

Based on a multi-gene phylogeny, Jayasiri et al. (2018) showed that this is a distinct family within the *Minutisphaerales* (S. Fryar).

### *Aculeata* W. Dong, H. Zhang & K.D. Hyde

Dong et al. (2018) introduced this genus in *Herpotrichiellaceae* based on phylogenetic analyses and distinct morphological characters (Q. Tian).

### *Adelolecia* Hertel & Hafellner

Kistenich et al. (2018) transferred this genus from *Ramalinaceae* to *Lecanoraceae* (E. Timdal).

### *Aeruginoscyphus* Dougoud

Dougoud (2012) introduced this genus within *Hyaloscyphaceae* to accommodate *Peziza sericea* (D. Haelewaters).

### *Agyriaceae* Corda

Kraichak et al. (2018a) regarded that *Miltideaceae* Hafellner as a synonym of *Agyriaceae* (N. Wijayawardene).

### *Alanomyces* Roh. Sharma

Sharma et al. (2017) showed that this genus is a separate lineage in *Aplosporellaceae* and introduced a new genus with a single species (A.J.L. Phillips).

### *Alleppeysporonites* Ramanujam & K.P. Rao (fossil).

This genus shows striking similarity to the dematiaceous fungus *Grallomyces* F. Stevens (Barnett 1956, Ellis 1971, Subramanian 1971) (R.K. Saxena).

### *Allographa* Chevall.

Lücking & Kalb (2018) resurrected *Allographa* from synonymy of *Graphis* (M. Kukwa).

### ***Alternaria* Nees**

Currently, *Alternaria* has about with 589 legitimate species epithets (MycoBank 2019). More than 150 of them have been synonymized or assigned as “indistinguishable as unique” by Simmons (2007) since their descriptions and illustrations are scanty while the type material is unavailable. Remaining list of species should be reduced by sixty five synonymic names due to revisions of Woudenberg et al. (2014, 2015). Thirteen species should be transferred to *Alternaria* from abolished genera *Ulocladium* and *Nimbya* (Gannibal 2018, Gannibal & Lawrence 2018). Thus the genus *Alternaria* at the moment contains 366 accepted and recognizable species. Not all of them have been subjected to molecular phylogenetic studies (P.B. Gannibal).

### ***Amarenomyces* O.E. Erikss.**

Rossmann et al. (2015) treated *Amarenomyces* as a synonym of *Amarenographium*. Based on molecular analyses coupled with morphological characteristic, Wijayawardene et al. (2016) introduced *Amarenographium ammophilae* Wanas.et al.; whereas, Hyde et al. (2017) introduced *Amarenomyces dactylidis* Mapook et al. Multigene phylogenetic analyses revealed that these two genera were not congeneric, thus Hyde et al. (2017) reinstated *Amarenomyces* (R. Phookamsak).

### ***Amazonotheca* Bat. & H. Maia**

Phookamsak et al. (2016) treated the genus in *Dothideomycetes*, genera *incertae sedis* based on herbarium study from Dr. Lima’s collection (P-4. Serra do Veado-Serra do Navio, 24 August 1961, Lima J.A. (Leg.), A.C. Batista A.C. & Xavier Filho L. (det.), URM 28927). The type specimen was deposited in the Universidade Federal de Pernambuco (URM), Brazil but it could not be loaned (R. Phookamsak).

### ***Amorphothecaceae* Parbery**

*Amorphothecaceae* is a monotypic family that was previously placed in *Leotiomyces* genera *incertae sedis* (Baral 2016). Ekanayaka et al. (2019) retrieved it as sister to *Erisyphaceae* but this placement was without support. Strong support came with the 15-gene tree of Johnston et al. (2019), in which *Amorphothecaceae* was placed in the pezizelloid clade of *Helotiales* (D. Haelewaters).

### ***Anatolinites* Elsik, V.S. Ediger & Bati (fossil)**

Spores of *Anatolinites* have a tendency to break apart along the septa. Kalgutkar & Jansonius (2000) considered *Cupulisporonites* Z.C. Song & Liu Cao a junior taxonomic synonym of *Anatolinites* (R.K. Saxena).

### ***Annabella* Fryar, Haelew., & D.E.A. Catches.**

Fryar et al. (2019) introduced this genus for *A. australiensis* Fryar, Haelew., & D.E.A. Catches. from mangrove wood with perithecioid hyaline to yellowish apothecia. The genus is confirmed as a member of *Cordieritidaceae* based on the molecular phylogenetic analysis of a concatenated dataset of three ribosomal nuclear loci (D. Haelewaters).

### ***Antennopsis* R. Heim**

Guswenrivo et al. (2018) used the partial 18S rRNA gene to place this genus within Ascomycota and found that it is positioned within Sordariomycetes. It has a sister relationship to *Graphium euwallaceae* (Graphiaceae), but we are reluctant in formally placing *Antennopsis* in this family, because the phylogeny was based only on 18S (D. Haelewaters).

### ***Anthopsis* Fil. March. et al.**

Phylogenetic analyses placed this genus in Cyphellophoraceae, Chaetothyriales. The type species, *A. deltoidea*, clusters within a large *Cyphellophora* clade and therefore *Anthopsis* might be a synonym of *Cyphellophora*. The synonymy, however, has not yet been properly proposed. *Anthopsis* currently includes three species, *A. deltoidea*, *A. catenata* and *A. microspora*, but DNA sequence data proved that *A. catenata* is not a member of *Chaetothyriales* (Moussa et al. 2017). No DNA sequence data is available for *A. microspora* (H. Madrid).

***Aotearoamyces*** P.R. Johnst., J.A. Cooper & Quijada

Quijada et al. (2018a) introduced this genus for *A. nothofagi*, a species from fallen wood in Nothofagaceae forests in New Zealand. It was placed in the family *Tympanidaceae* within the order *Phacidiales* based on the phylogenetic analysis of three ribosomal nuclear loci. Based on a larger 15-locus analysis, Johnston et al. (2019) placed *Aotearoamyces* within *Leotiales* genera *incertae sedis* with high support (D. Haelewaters).

***Aplosporella*** Speg.

Slippers et al. (2013) suggested that this genus is the sexual morph of *Aplosporella*, but they declined to make a formal synonymy. Phillips et al. (2019) formally placed *Bagnisiella* as a synonym of *Aplosporella* (A.J.L. Phillips).

***Appendicisporonites*** R.K. Saxena & S. Khare (fossil).

*Appendicisporonites* appears to be related to the setose pycnidia found in some *Coelomyces* Grove (R.K. Saxena).

***Aquacidia*** Aptroot

Aptroot et al. (2018) introduced this genus and confirmed its placement in *Pilocarpaceae* (N. Wijayawardene).

***Aquimonospora*** J. Yang & K.D. Hyde

Yang et al. (2019) introduced this monotypic genus to accommodate the new species *Aquimonospora tratensis*. A new genus and species collected from freshwater habitat in Thailand (S. Tibpromma).

***Arthrocladium*** Papendorf

This genus comprises four species which form a monophyletic group in *Trichomeriaceae*. They are associated mainly with plant material and occasionally also with opportunistic infections in humans (Nascimento et al. 2016) (H. Madrid).

***Arthrophia*** (D.J. Soares, R.W. Barreto & U. Braun) W.S. Lisboa et al.

This monotypic genus was recently erected to accommodate the plant pathogenic fungus *Pseudocercospora arthrospora*. DNA sequence data revealed that this fungus is a member of *Chaetothyriales* (Crous et al. 2016), while true *Pseudocercospora* species belong in *Capnodiales*. In the protologue, *Arthrophia* was considered as a member of *Chaetothyriaceae*, but its definitive phylogenetic placement may require further study (H. Madrid).

***Ascochyites*** Barlinge & Paradkar (fossil)

The genus name *Ascochyites* was first used by Teterevnikova-Babaian & Taslakhchian (1973), but not then validly published due to lack of illustration of the spores (R.K. Saxena).

***Ascodesmisites*** Trivedi, Chaturv. & C.L. Verma (fossil)

The fossil specimen shows close affinity with family *Pezizaceae* but differs from the latter by the absence of exciple. Minute fruiting bodies and various sexual stages somewhat resemble



those of *Ascodesmis* Tiegh. In fossil specimen, the male and female sex organs are found growing on two different hyphae indicating that the fungus could be dioecious (R.K. Saxena).

***Asterinites*** Doub. & D. Pons ex Kalgutkar & Janson. (fossil)

Jansonius & Hills (1976) remarked: "Two species described; until one of these is selected as type species, the genus is not validly published. The genus seems to be intended for mycelia, rather than definite fruiting bodies". The lectotype was designated by Kalgutkar & Jansonius (2000) (R.K. Saxena).

***Asterothyrites*** Cookson emend. Kalgutkar & Janson. (fossil)

The lectotype was selected by Jansonius & Hills (1976). Kalgutkar & Jansonius (2000) emended the generic diagnosis. *Paramicrothallites* K.P. Jain & R.C. Gupta is a junior taxonomic synonym of *Asterothyrites* (Kalgutkar & Jansonius 2000) (R.K. Saxena).

***Astragalicola*** Jaklitsch & Voglmayr

Jaklitsch et al. (2018) proposed this new genus based on morphological and molecular data (S. Fryar).

***Atractium*** Syd. & P. Syd.

For many years, this genus was considered as a synonym of *Fusarium*, but a multilocus phylogenetic study by Gräfenhan et al. (2011) proved that *Atractium* represents a distinct genus in Nectriaceae (H. Madrid).

***Axisporonites*** Kalgutkar & Janson. (fossil)

Kalgutkar and Jansonius (2000) designated *Multicellaesporites indicus* P. Kumar (Now: *Axisporonites indicus* (P. Kumar) Kalgutkar & Janson.) as type of this monotypic genus (R.K. Saxena).

***Bacidia*** De Not.

Kistenich et al. (2018) treated *Bacidiospora* Kalb as synonym of *Bacidia* (E. Timdal).

***Bacillicladium*** Hubka, Réblová & Thureborn

This monotypic genus, typified by *B. lobatum*, forms a distinct lineage in *Chaetothyriales* which might represent an undescribed family (Réblová et al. 2016) (H. Madrid).

***Baeomycetales*** Lumbsch et al.

Kraichak et al. (2018a) regarded that *Arctomiales* S. Stenroos et al., *Hymeneliales* S. Stenroos et al and *Trapeliales* B.P. Hodk. & Lendemmer as synonyms of *Baeomycetales* (N. Wijayawardene).

***Bahusandhika*** Subram.

Liu et al. (2018a) transferred this genus to the new family, *Lentimurisporaceae*, based on a multi-gene phylogeny (S. Fryar).

***Barrenia*** E. Walsh & N. Zhang

Johnston et al. (2019) accepted this genus in *Mollisiaceae* (D. Haelewaters).

***Barrmaeliaceae*** Voglmayr & Jaklitsch

Voglmayr et al. (2018) recognised the family *Barrmaeliaceae* with the genera *Barrmaelia* and *Entosordaria* from phylogenetic analyses of a combined DNA data matrix containing ITS, LSU, *rpb2* and *tub2* sequences of representative Xylariales including the type species of both genera. They also established that the morphologically similar genus *Clypeosphaeria* belongs to

*Xylariaceae sensu stricto*. The other genera of the family *Clypeosphaeraceae* aside from *Clypeosphaeria*, however, still need to be studied by methods of polyphasic taxonomy to assure their affinities to the *Xylariaceae*. The study by Vogmayr et al. (2018) also revealed that some DNA sequence data of the genera *Alloanthostomella*, *Neoanthostomella*, and *Pseudoanthostomella* that are available in the public domain were erroneous, which gave rise to some serious doubt as to their familiar affinities. These genera are therefore placed in *Xylariales Incertae sedis* until the phylogenetic position has been verified based on new DNA sequence data (M. Stadler).

***Basidiobolales*** Jacz. & P.A. Jacz.

*Basidiobolales* Caval.-Sm., Biological Reviews Cambridge 73: 246 (1998) is an isonym (K. Bensch).

***Basidiobolomycetes*** Doweld

*Basidiobolomycetes* Humber, Mycotaxon 120: 484 (2012) is an isonym, Doweld was published already in 2001; see IF and MB (K. Bensch).

***Basidiosporites*** Elsik (fossil)

Kalgutkar & Jansonius (2000) considered *Amepiospora* Sal.-Cheb. & Locq. a later synonym of this genus (R.K. Saxena).

***Bellicidia*** Kistenich, Timdal, Bendiksby & S.Ekman

Kistenich et al. (2018) introduced this genus in *Ramalinaceae* (E. Timdal).

***Biatora*** Fr.

Kistenich et al. (2018) reduced *Ivanpisutia* S.Y. Kondr., Lökös & Hur and *Myrionora* R.C. Harris under this genus (E. Timdal).

***Bibhya*** J.H. Willis

Kistenich et al. (2018) resurrected this genus in *Ramalinaceae* (E. Timdal).

***Bifusisporella*** R.M.F. Silva et al.

Silva et al (2019) placed this new genus in the family *Magnaporthaceae* based on molecular and morphological characters. This genus shown the phylogenetic inference related to *Omnidemptus* but differ in by having an asexual morph with sporodochial conidiomata (Cannon & Alcorn 1994) (S. Tibpromma).

***Biporipsilonites*** Kalgutkar & Janson. (fossil)

Spores in this genus can be differentiated from *Diporisporites* Hammen by having pore chambers. Kalgutkar & Jansonius (2000) designated *Diporicellaesporites belluloides* Z.C. Song (Now: *Biporipsilonites belluloides* (Z.C. Song) Kalgutkar & Janson.) as type of this genus (R.K. Saxena).

***Botryosphaeriaceae*** Theiss. & Syd.

See under *Endomelanconiopsis* E.I. Rojas & Samuels Tao (A.J.L. Phillips).

***Botryozyma*** Shann & M.T. Sm. emend. Lachance & Kurtzman

Kurtzman & Boekhout (2017) include *Ascobotryozyma* J. Kerrigan, M.T. Sm. & J.D. Rogers (under *Botryozyma*) to comply with the Melbourne Code (W.P. Pfliegler & E. Horváth).

***Boubovia*** Svrček

This genus and *Coprotus* Korf & Kimbr. represents an independent clade of *Pezizales*, not included in *Ascodesmidaceae*, as shown by Perry et al. (2007) and also Hansen et al. (2013) (P. Alvarado).

***Brachysporisporites*** R.T. Lange & P.H. Sm. (fossil)

*Granatisporites* Elsik & Janson. is a junior taxonomic synonym of *Brachysporisporites* (Kalgutkar & Jansonius 2000). Spores of *Brachysporisporites* are usually compared to the conidia of the modern *Brachysporium* Sacc. (R.K. Saxena).

***Bradymyces*** Hubka et al.

This genus currently includes with three species which form a monophyletic group within Trichomeriaceae (Réblová et al. 2016) (H. Madrid).

***Brefeldiellites*** Dilcher (fossil)

The fossil form of this monotypic genus is similar to the *Brefeldiella* Speg. but cannot be placed in this extant genus because the spores are not known (R.K. Saxena).

***Bresadolia*** Speg.

Motato-Vásquez et al. (2018) reinstated this genus and accepted as in Polyporaceae (V. Papp).

***Brigantiaeaceae*** Hafellner & Bellem.

Kraichak et al. (2018a) regarded *Letrouitiaceae* as a synonym of *Brigantiaeaceae* (N. Wijayawardene).

***Brunneofusispora*** S.K. Huang & K.D. Hyde

*Brunneofusispora* was introduced in Phookamsak et al. (2019) to accommodate massarina-like species and species identified as *Massarina rubi* (Fuckel) Sacc. Multi-gene phylogenetic analyses revealed that the genus formed a distinct clade within *Occultibambusaceae* (Phookamsak et al. 2019) (R. Phookamsak).

***Brunneomurispora*** Phook. et al.

Phookamsak et al. (2019) introduced a monotypic genus *Brunneomurispora* to accommodate *B. loniceriae*. Multi-gene phylogenetic analyses showed that the genus formed a distinct clade basal to *Neosetophoma* in *Phaeosphaeriaceae*. However, the sexual morph of *Neosetophoma* has phragmosporous ascospores; whereas, *Brunneomurispora* has dictyosporous ascospores. Asexual morph of *Brunneomurispora* is undetermined (R. Phookamsak).

***Bryobilimbia*** Fryday et al.

Fryday et al. (2014) introduced *Bryobilimbia* to accommodate six species, including *Lecidea hypnorum* and some related taxa based on morphological characters such as bacilliform conidia, slightly swollen paraphyses and thallus minutely squamulose without marginal lobes. Phylogenetic analyses revealed *Bryobilimbia* as a distinct monophyletic lineage within *Lecideaceae*, *Lecideales*, *Lecanoromycetes* (P. Rodriguez-Flakus).

***Bulbomicroidium*** Marm. et al.

Marmolejo et al. (2018) introduced this monotypic genus and confirmed its placement in *Erysiphaceae* based on molecular phylogenetic analysis of the LSU (S. Takamatsu).

***Byssonectria*** P. Karst.

The genus *Kotlabaea* Svrček has been reduced under *Byssonectria* by Lindemann et al. (2015) (P. Alvarado).

***Callimothallus*** Dilcher (fossil)

*Callimothallus* lacks any central dehiscence and is characterized by numerous pores. Elsie (1978) pointed out that the porate condition in *Callimothallus* is required for at least in a number of the cells to separate it from *Phragmothyrtes* W.N. Edwards and that if the porate nature is well represented, even fragments of the fructification are recognizable. Kalgutkar & Jansonius (2000) considered *Pseudosphaerialites* Venkatach. & R.K. Kar and *Sivalikiathyrites* R.K. Saxena & H.P. Singh as junior synonyms of *Callimothallus* (R.K. Saxena).

***Calongea*** Healy, Bonito & Trappe

This genus was erected to accommodate *Pachyphloeus prieguensis* (Healy et al. 2009), reflecting a separate lineage within *Pezizaceae* (I. Kušan, N. Matočec & P. Alvarado).

***Calyptosphaeria*** Réblová & A.N. Mill.

Réblová et al. (2018) introduced this genus to accommodate two new species and two new combinations based on a multi-gene phylogeny and morphological characters (S. Fryar).

***Camptophora*** Réblová & Unter.

This genus, originally proposed to accommodate a '*Cyphellophora*' species clustering outside the *Cyphellophoraceae* clade. It currently includes two species, viz. *C. hylomeconis*, the generic type and *C. schimae* (Réblová et al. 2013, Yang et al. 2018a) (H. Madrid).

***Candida*** Berkhout

Transfer of several *Candida* species to various yeast genera (including novel genera) is expected. But *Candida* is expected to be the retained genus name for the *C. tropicalis* clade instead of *Lodderomyces* Van der Walt in *Debaryomycetaceae* to comply with the Melbourne Code. Transferring the hundreds of *Candida* species to monophyletic genera is one of the main current challenges in yeast taxonomy (Kurtzman & Boekhout 2017) (W.P. Pfliegler & E. Horváth).

***Castanedospora*** G. Delgado & A.N. Mill.

Delgado et al. (2018) introduced this hyphomycetous genus to accommodate *Sporidesmium pachyanthicola* R.F. Castañeda & W.B. Kendr. In the phylogenetic analyses, it grouped in *Extremaceae* (*Capnodiales*, *Dothideomycetes*) distant from *Sporidesmiaceae* sensu stricto in *Sordariomycetes* (G. Delgado & S. Fryar).

***Catinaria*** Vain.

Kistenich et al. (2018) transferred this genus from *Ramalinaceae* to the *Lecanorales* genera *incertae sedis* (E. Timdal).

***Cenangiaceae*** Rehm

In their 15-gene phylogeny, Johnston et al. (2019) found high support for a sclerotinioid clade including *Cenangiaceae* within the *Helotiales*. Here, we follow the emended concept of Pärtel et al. (2017) for the family *Cenangiaceae*, including the following genera: *Cenangiopsis*, *Cenangium*, *Chlorencoelia*, *Crumenulopsis*, *Encoelia*, *Fabrella*, *Heyderia*, *Rhabdocline*, *Sarcotrochila*, *Trochila*, and *Velutarina* (D. Haelewaters).

***Cephaliphora*** Thaxt.

This genus is firmly nested as a separate lineage within *Ascodesmidaceae*, *Pezizales* (Kušan et al. 2018) (I. Kušan & N. Matočec).

***Cercosporites*** E.S. Salmon (fossil)

*Aspergillites* Trivedi & C.L. Verma ex Janson., Hills & Hartk.-Fröd. is a taxonomic latter synonym of *Cercosporites* (Kalgutkar & Jansonius 2000) (R.K. Saxena).

***Chaetosphaerites* Félix (fossil)**

This genus is characterized by spores having two middle cells being dark brown and two end cells pale brown. The shape of the sporidia is strongly obtuse spindle-shaped, almost like that of a cylinder with rounded ends. *Cannanorosporonites* Ramanujam & K.P. Rao is a latter taxonomic synonym of *Chaetosphaerites* (R.K. Saxena).

***Cheirospora* Moug. & Fr.**

Johnston et al (2019) accepted this genus in *Mollisiaceae* (D. Haelewaters).

***Chlorociboriaceae* Baral & P.R. Johnst.**

Based on Johnston et al.'s (2019) 15-gene phylogenetic analysis, *Chlorobiboriaceae* is part of the sclerotinioid clade within *Helotiales* (D. Haelewaters & N. Wijayawardene).

***Chroogomphus* (Singer) O.K. Mill.**

Scambler et al. (2018) revised the infrageneric classification of the genus, introduced three subgenera (*Chroogomphus*, *Floccigomphus* and *Siccigomphus*) and five sections/clades within subg. *Chroogomphus* (*Chroogomphus*, *Confusi*, *Filiformis*, *Fulminei* and the informal *Vinicolores* clade). *Chroogomphus subfulmineus* from Cyprus, Finland and the UK, and *C. pakistanicus* and *C. pruinus* from Pakistan were recently described bringing the number of recognized species to 25 (Scambler et al. 2018, Kiran et al. 2020) (D. Haelewaters).

***Chrysodiscaceae* Baral & Haelew.**

Baral & Polhorský (2019) introduced this family to accommodate *Chrysodisca peziculoides*, a broadly distributed European discomycete resembling *Pezicula* but phylogenetically separated from previously recognized families within *Helotiales* (D. Haelewaters).

***Chrysonectria* Lechat & J. Fourn**

Lechat et al (2018a) introduced this genus and showed that it is phylogenetically belongs to *Bionectriaceae* (N. Wijayawardene)

***Cinereomycetella* Zmitr.**

Justo et al. (2017) showed that *Diplomitoporus overholtsii* (Pilát) Gilb. & Ryvarden forms a distinct phylogenetic lineage in the family *Polyporaceae*. Hence, Zmitrovich (2018) introduced the monotypic genus *Cinereomycetella* in *Gelatoporiaceae* to accommodate *Diplomitoporus overholtsii* (V. Papp).

***Cladoniaceae* Zenker**

Kraichak et al. (2018a) revised *Lecanoromycetes* and showed that *Squamarinaceae* Hafellner, *Stereocaulaceae* Chevall are synonyms of *Cladoniaceae* Zenker (in *Lecanorales*) based on temporal-based classification (N. Wijayawardene).

***Cladophialophora* Borelli**

The genus *Cladophialophora* is polyphyletic within *Chaetothyriales*. The generic type, *C. carrionii* and most species of this genus belong in *Herpotrichiellaceae*, but a few species are related to other chaetothyrialean families, such as *Epibryaceae* and *Trichomeriaceae* (Madrid et al. 2016) (H. Madrid).

***Cladorrhinum* Sacc. & Marchal**

Phylogenetic studies by Cai et al. (2006), Madrid et al. (2011) and Carmaran et al. (2015) proved that this genus belongs in *Lasiosphaeriaceae*. Nevertheless, Hyde et al. (2020) accepted this genus in *Podosporaceae*. The genus, however, is polyphyletic within this fungal family (H. Madrid).

***Cladosporites*** Felix (fossil)

The conidia greatly resemble those of the genera *Cephalothecium* Corda and *Cladosporium* Link. (R.K. Saxena).

***Clarireedia*** L.A. Beirn

Salgado-Salazar et al. (2018) proposed this new genus with *C. homoeocarpa* as the type species (*Rutstroemiaceae*) based on molecular and morphological characters. The genus comprises three other species except the type species viz. *C. bennettii*, *C. jacksonii*, and *C. monteithiana* (Salgado-Salazar et al. 2018) (S. Fryar & S. Somrithipol).

***Claussenomyces*** Kirschst.

According to Quijada et al (2018b) and Species Fungorum (2020), the genus *Claussenomyces* currently contains 16 species. However, the genus is “heterogeneous” (Jaklitsch et al. 2016a) and polyphyletic. As a result, it is currently under taxonomic revision. “*Claussenomyces*” *prasinulus* is treated as *Leotiales* genera incertae sedis based on its placement in Johnston et al.’s (2019) 15-gene tree. (D. Haelewaters, I. Kuřan & N. Matoec).

***Cochlearomyces*** Crous

Crous et al. (2017) established this genus to accommodate a synnematosus fungus on leaf litter of *Eucalyptus*. The same authors also introduced a new family (*Cochlearomycetaceae*) for the genera *Cochlearomyces* and *Satchmopsis*, which was retrieved in *Leotiales* based on the phylogenies of both Ekanayaka et al. (2019) and Johnston et al. (2019) (D. Haelewaters).

***Coleophoma*** Hohn.

Using a polyphasic approach, Crous & Groenewald (2016) established the teleomorph-anamorph connection between *Coleophoma* and *Parafabraea* Chen Chen, Verkley & Crous, thus reducing *Parafabraea* to synonymy. *Coleophoma* is placed in *Dermateaceae* (Johnston et al. 2019) (D. Haelewaters).

***Colligerites*** K.P. Jain & R.K. Kar (fossil).

*Involutisporonites* Elsik broadly resembles *Colligerites* but in the former, coiling is not perfect and it has a hyaline cell at the tip (R.K. Saxena).

***Compsocladium*** I.M. Lamb

Kistenich et al. (2018) transferred this genus from *Ramalinaceae* to the *Lecanorales incertae sedis* (E. Timdal).

***Coprotus*** Korf & Kimbr.

See under *Boubovia* Svrcek (P. Alvarado).

***Coprinites*** Poinar & Singer (fossil)

The fossil mushroom has affinity with the present day genus *Coprinus* Pers (R.K. Saxena).

***Corticifraga*** D. Hawksw. & R. Sant.

The genus *Corticifraga*, comprising 7 species and has been recently transferred to *Gomphilaceae* (Pino-Bodas et al. 2017, Suija et al. 2018), but so far only the type species has been sequenced (M. Kukwa & A. Suija).

***Craspedodidimella*** F.R. Barbosa, R.F. Castañeda & Gusmão

Barbosa et al. (2017) introduced this genus and showed that it belongs in *Ascomycota* genera *incertae sedis* (F.R. Barbosa).

***Crassiclypeus*** A. Hashim. et al.

Hashimoto et al. (2018) proposed this genus with *Crassiclypeus aquaticus* as the type species, which was previously included in the *Lophiostoma bipolare* species complex (S. Fryar).

***Crepatura*** C.L. Zhao

Zhao et al. (2019) proposed this new genus with *Crepatura ellipsospora* as the type species based on molecular and morphological characters. While, this genus phylogenetically closely related to *Pirex concentricus* but morphology is different (S. Tibpromma).

***Crustospathula*** Aptroot

Kistenich et al. (2018) transferred this genus from the *Ramalinaceae* to the *Malmideaceae* (E. Timdal).

***Cryptodidymosphaerites*** Currah, Stockey & B.A. LePage (fossil)

This genus from the Princeton chert presents sufficient characters such as the presence of a pseudothecium, ascospores morphology, orientation and the mycoparasitic habit to place it close to *Didymosphaeria* Fuckel. (Aptroot 1995) (R.K. Saxena).

***Cryptodiscus*** Corda

Pino-Bodas et al. (2017) regarded that *Lettauia* D. Hawksw. & R. Sant. as a synonym of *Cryptodiscus*, however, 3 species are still orphaned under that name, but so far have not been relocated (M. Kukwa & A. Suija).

***Cryptophyllachora*** L. Kiss, Kovács & R.G. Shivas

Kiss et al. (2018) proposed *Cryptophyllachora* to accommodate *C. eurasiatica* (the type species) collected from common ragweed (*Ambrosia artemisiifolia*) in Hungary, and *C. ambrosiae* that was transferred from *Phyllachora ambrosiae* (S. Somrithipol).

***Cucitella*** Jaklitsch & Voglmayr

Jaklitsch et al. (2018) proposed this new genus based on morphological and molecular data (S. Fryar).

***Cucurbitariaceites*** R.K. Kar, R.Y. Singh & S.C.D. Sah (fossil)

*Cucurbitariaceites* is easily distinguishable from all the fossil genera of *Microthyriales* G. Arnaud. by its circular to subcircular shape, darker outer layer and thin inner layer, in the absence of true paraphyses and the presence of cylindrical asci. *Cucurbitariaceites* closely resembles the extant family *Cucurbitariaceae* G. Winter in all the characters and *Cucurbitaria* Gray is the widely known genus of this family (Bessey 1950) (R.K. Saxena).

***Culbersonia*** Essl.

This genus is considered part of the *Caliciaceae* by Aptroot et al. (2019) (P. Alvarado).

***Cylindriaceae*** Crous & L. Lombard

Crous et al. (2018) introduced this new family to accommodate *Cylindrium*, which was previously in *incertae sedis*. Hyde et al. (2020) accepted this family in *Amphisphaeriales* (S. Fryar).

***Cylindrosporium*** Grev.

Baral (2016) and Ekanayaka et al. (2019) accepted this genus in *Ploettnerulaceae* (D. Haelewaters & N. Wijayawardene).

***Cyphellophora*** G.A. de Vries

Species of *Cyphellophora* are characterized by slow-growing colonies, dematiaceous mycelium and phialidic conidiogenous cells usually with conspicuous collarettes. Phylogenetically, they form a distinct clade in *Chaetothyriales* for which the family *Cyphellophoraceae* was erected (Réblová et al. 2013) (H. Madrid).

***Deccanodia*** Singhai (fossil)

*Deccanodia* resembles *Diplodia* Fr. in its pycnidium and 2-celled, brown and mostly ellipsoid conidia (Barnett 1960, Gilman 1959). However, in *Diplodia*, black pycnidia and equal 2-celled conidia are present thus showing a distinct difference from the fossil fungus which has slightly brown pycnidium and unequally divided 2-celled conidia. *Deccanodia* also resembles *Apiocarpella* Syd., belonging to Fungi Imperfecti (Barnett 1960) (R.K. Saxena).

***Dekkera*** Van der Walt

Expected transfer of species to *Brettanomyces* Kufferath & van Laer to comply with the Melbourne Code (Kurtzman & Boekhout 2017) (W.P. Pfliegler and E. Horváth).

***Dendrostoma*** X.L. Fan & C.M. Tian

Fan et al. (2018a) placed this new genus in the family Erythroglloeaceae with three species viz. *D. mali* (the type species), *D. quercinum*, and *D. osmanthi*. The genus comprises 19 species associated wood canker disease (Jaklitsch et al. 2019, Jiang et al. 2019b, Zhu et al. 2019). (S. Fryar, X. Fan & S. Somrithipol).

***Densocarpa*** Gilkey

According to recently shown phylogenies (e.g. Kumar et al. 2017), this genus should not be considered as a synonymy of *Stephensia* as it represents separate lineage in *Geopyxis* clade (I. Kušan & N. Matočec).

***Densospora*** McGee

Single-locus and multigene phylogenetic reconstructions depict *Densosporaceae* as a distant sister clade of *Endogonaceae* within the order *Endogonales* (Desirò et al. 2017) (K. Bensch).

***Dentocorticium*** (Parmasto) M.J. Larsen & Gilb.

Liu et al. (2018b) treated *Dendrodontia* Hjortstam & Ryvar den and *Fuscocerrena* Ryvar den as synonyms of *Dentocorticium* (V. Papp).

***Dextrinoporus*** H.S. Yuan

Yuan & Qin (2018) introduced this monotypic genus to accommodate the new species *D. aquaticus* H.S. Yuan and showed that it forms a distinct phylogenetic lineage in the family *Polyporaceae* (V. Papp).

***Diademosia*** Shoemaker & C.E. Babc.

This genus has been originally considered as a genus of *Diademaceae* (Shoemaker & Babcock 1992). Later it was transferred to *Pleosporaceae* (Ariyawansa et al. 2014) but molecular phylogeny has not still used for its replacement (P.B. Gannibal).

***Diaporthosporrellaceae*** C.M. Tian & Q. Yang



Yang et al. (2018b) introduced *Diaporthosporellaceae* for *Diaporthosporella cercidicola*, a new genus and species collected from diseased branches of *Cercis chinensis* in China (S. Somrithipol & S.S.N. Maharachchikumbura).

***Diaporthostoma*** X.L. Fan & C.M. Tian

*Diaporthostoma machili* is the type species of recently introduced genus *Diaporthostoma* by Fan et al. (2018a) (S.S.N. Maharachchikumbura).

***Diaporthostomataceae*** X.L. Fan & C.M. Tian

This monotypic family was introduced by Fan et al. (2018a) based on morphology and the analysis of partial ITS, LSU, rpb2 and tef1- $\alpha$  gene sequences. This family belongs to the order *Diaporthales* (S.S.N. Maharachchikumbura and S. Fryar).

***Dictyoceratosporella*** Y.R. Ma & X.G. Zhang

Ma et al. (2016) established this hyphomycetous genus. Sequence data are lacking thus taxonomic placement is uncertain (J. Ma).

***Dictyosporites*** Félix (fossil)

These spores are comparable to the conidia of some modern genera like *Dictyosporium* Corda, *Stemphylium* Wallr., *Septosporium* Corda and *Alternaria* Nees, and the ascospores of *Pleospora* Rabenh. ex Ces. & De Not. *Arbusculites* Paradkar, *Dactylosporites* Paradkar, *Pleosporonites* R.T. Lange & P.H. Sm. and *Ravenelites* Ramanujam & Ramachar are latter taxonomic synonyms of *Dictyosporites* (Kalgutkar & Jansonius 2000) (R.K. Saxena).

***Digitiseta*** Gordillo & Decock

Gordillo & Decock (2018) proposed *Digitiseta* and transferred two *Myrothecium* (*M. setiramosum* and *M. dimorphum*) into the genus as *D. setiramosa* (the type species) and *D. dimorpha*. *Digitiseta parvidigitata* and *D. multidigitata* were described as new and also included. *Digitiseta* differs from the two closely related genera, *Inaequalispora* and *Parvothecium*, in having short apical branches of the setoid extension (S. Somrithipol).

***Diphymyces*** I.I. Tav.

*Diphymyces* was introduced by Tavares (1985) to accommodate *Laboulbeniales* species with thalli that have a septum vertically separating cells II and VI, four tiers of perithecial wall cells, and (sub-) apical perithecial outgrowths. The separation of this genus from *Corethromyces* Thaxt. was primarily based on the position of cells II and VI, which is a variable character (discussed in De Kesel & Haelewaters 2019). Also the genera *Asaphomyces* Thaxt. and *Euphoriomyces* Thaxt. might be synonymous. These four genera are placed in three different subtribes (Tavares 1985), but several higher taxa (subtribes and tribes) from the Tavares (1985) classification are polyphyletic following molecular phylogenetic treatments (Goldmann & Weir 2018, Haelewaters et al. 2018b). Molecular phylogeny is needed to resolve these taxonomic and systematic problems (D. Haelewaters).

***Diplodites*** D.N. Babajan & Tasl. ex Kalgutkar, Nambudiri & Tidwell (fossil)

Kalgutkar et al. (1993) validated the name *Diplodites* to encompass fossil taxa that are morphologically similar to the extant fungi *Diplodia* Fr., *Botryodiplodia* (Sacc.) Sacc. and other related genera such as *Dothiorella* Sacc. and *Macrophoma* (Sacc.) Berl. & Voglino. *Palaeodiplodites* Kyoto Watanabe, H. Nishida & Tak. Kobay. is a junior taxonomic synonym of *Diplodites* (Kalgutkar & Jansonius 2000). (R.K. Saxena).

***Diploneurospora*** K.P. Jain & R.C. Gupta (fossil)

This monotypic genus accommodates two-celled (cells unequal), uniseriate, elliptical ascospores with uneven margin; upper cell prominent, dark brown, thick-walled, wall sculptured with longitudinal ribs; lower cell hyaline, appendage-like, small in size, rib sculpture faint. It closely resembles to the single celled ascospores of extant genus *Neurospora* Shear & B.O. Dodge (R.K. Saxena).

***Diporisorites*** Hammen (fossil)

Kalgutkar & Jansonius (2000) considered *Scabradiporites* Y.K. Mathur a latter taxonomic synonym of *Diporisorites* (R.K. Saxena).

***Discinellaceae*** Ekanayaka & K.D. Hyde

Ekanayaka et al. (2019) introduced this family within *Helotiales*. Johnston et al. (2019) found high support for what they referred to as the *Discinella-Pezoloma* lineage (sensu Baral 2016), placed as sister clade to *Gelatinodiscaceae* in the discinelloid clade of *Helotiales*. A number of genera that were previously placed elsewhere are now considered members of *Discinellaceae*: *Cladochasiella*, *Fontanospora*, *Margaritisporea*, *Naevala*, *Pseudopezicula* and *Tetrachaetum* (D. Haelewaters).

***Dothiorella*** Sacc.

Yang et al. (2017) considered that *Spencermartinsia* should no longer be considered a separate genus and placed it as a synonym of *Dothiorella*. Currently 389 names are listed in MycoBank, but only 38 are known from culture (A.J.L. Phillips).

***Drepanopezizaceae*** Baral

Introduced in Johnston et al. (2019) as sister family to *Ploettnerulaceae* within *Helotiales* (D. Haelewaters).

***Ducatina*** Ertz & Sørchting

Ertz et al. (2017b) introduced this genus which belongs in *Trapeliaceae* (N. Wijayawardene).

***Durella*** Tul. & C. Tul.

Baral (2016) treated this genus in his “*Strossmayeria* lineage”, which was confirmed by the ITS tree of Johnston et al. (2019). However, two species, “*Durella*” *macrospora* and “*D.*” *melanochlora*, are phylogenetically distinct from the type (*D. connivens*) and are here placed under *Helotiales* genera *incertae sedis* (D. Haelewaters).

***Durotheca*** Læssøe et al.

De Long et al. (2019) described two new species of *Durotheca* from China and provided a new molecular phylogeny that proved the affinities of the genus to the Hypoxylaceae. This had already been indicated by morphological data, such as the presence of a nodulisporium-like asexual morph in some species (M. Stadler).

***Dyadosporites*** Hammen ex R.T. Clarke (fossil)

Jansonius & Hills (1976) remarked that “although van der Hammen (1954) gave a diagnosis and the name of the type species, the latter was never described (or illustrated)”. Therefore, *Dyadosporites* was not a validly published name of a taxon, but as merely proposed in anticipation of future acceptance of the group. Clarke (1965) was the first to have validly published this genus name and also the first to assign a species (*Dyadosporites ellipsus* R.T. Clarke) to it. *Dyadosporonites* Elsik and *Psidimobipiospora* Sal.-Cheb. & Locq. are latter taxonomic synonyms of *Dyadosporites* (Kalgutkar & Jansonius 2000) (R.K. Saxena).

***Efibulella*** Zmitr.

Justo et al. (2017) showed that *Phlebia deflectens* (P. Karst.) Ryvar den forms a distinct phylogenetic lineage in the family Phanerochaetaceae. Hence, Zmitrovich (2018) introduced the monotypic genus *Efibulella* to accommodate *Phlebia deflectens* (V. Papp).

***Elaphroporia*** Z.Q. Wu & C.L. Zhao

Wu et al. (2018) introduced this monotypic genus to accommodate the new species *E. ailaoshanensis* Z.Q. Wu & C.L. Zhao, and accepted it as a genus in the residual polyporoid clade based on phylogenetic analyses (V. Papp).

***Emergomyces*** Dukik et al.

This genus of thermally dimorphic clinical fungi belongs in the family Ajellomycetaceae, according to multilocus phylogenetic studies by Dukik et al. (2017) (H. Madrid).

***Endomelanconiopsis*** E.I. Rojas & Samuels Tao

Yang et al. (2017) considered that this genus warrants a separate family and thus introduced *Endomelanconiopsisaceae* to accommodate it. Phillips et al. (2019) took into account phylogeny (ITS, LSU), morphology and evolutionary divergence times and concluded that *Endomelanconiopsis* resides within *Botryosphaeriaceae*. Hence, Phillips et al. (2019) regarded *Endomelanconiopsisaceae* as a synonym of *Botryosphaeriaceae* (A.J.L. Phillips).

***Endophoma*** Tsuneda & M.L Davey

This is a monotypic genus in *Didymellaceae*, typified by *E. elongata*. The fungus is an atypical coelomycete with endogenous conidiogenesis and its taxonomic position has been elucidated by DNA sequence analyses (Tsuneda et al. 2011a) (H. Madrid).

***Enterodictyon*** Müll. Arg.

It is an autonomous genus in Wijayawardene et al. (2017a), but the type species, *E. indicum* Müll. Arg., was transferred to *Diorygma* (Joseph et al. 2018). However, some species still need to be studied and relocated (M. Kukwa).

***Entrophospora*** Ames & Schneider

The fungus was treated as an *incertae sedis* in the last classification (Wijayawardene et al. 2018). Nevertheless, all partial rDNA sequences published within the last years, suggest that their type fungus (*E. infrequens*) belongs to *Claroideoglomerus* clade (Oehl et al 2011e,f), justifying the use of *Entrophosporaceae* instead of *Claroideoglomeraceae*.

***Epicladonia*** D. Hawksw.

According to Pino-Bodas et al. (2017), the generic type, *E. sandstedei* (Zopf) D. Hawksw. belongs to *Leotiomycetes* while other species are placed in *Ostropales* (A. Suija).

***Epithamnolia*** Zhurb.

Suija et al. (2017) showed that lichenicolous species of *Hainesia* form a distinct phylogenetic lineage within *Phacidiales*, and provisionally transferred lichenicolous species to the morphologically similar genus *Epithamnolia*. According to molecular analysis by Quijada et al. (2018a), the genus was placed in the poorly known *Mniaecia* lineage, which is now family *Mniaeciaceae* within *Leotiales* (Johnston et al. 2019). In contrast, Ekanayaka et al. (2019) regarded this genus as a member of the *Epicladonia-Epithamnolia* clade in *Lichinodiales*, however this placement had no statistical support (D. Haelewaters, A. Suija & N. Wijayawardene).

***Eudarluc***a Speg.

Rossmann et al. (2015) treated *Eudarluc*a as a synonym of *Sphaerellopsis* based on a study of Trakunyingcharoen et al. (2014). The congeneric status of *Eudarluc*a and *Sphaerellopsis* was

clarified based on *Eudarluka caricis* and *Sphaerellopsis filum*. However, Phookamsak et al. (2014) examined the isotype of *Eudarluka australis* and compared the morphology with *E. caricis*. Based on morphological examination, Phookamsak et al. (2014, 2019) mentioned that these two genera were not congeneric and suggested to instate *Eudarluka* in *Phaeosphaeriaceae* for pending further studies (R. Phookamsak).

### ***Eutiarosporella* Crous**

Based on ITS and LSU sequence phylogeny, Crous et al. (2015a) introduced *Eutiarosporella* as a new genus for tiarosporella-like fungi with long-necked conidiomata and holoblastic conidiogenesis (A.J.L. Phillips).

### ***Exesisporites* Elsik (fossil)**

The centrally located pore in *Exesisporites* is generally surrounded by a dark circular patch which is interpreted as a thickened wall. Ethridge Glass et al. (1986) cited possible affinity of *Exesisporites* to the extant fungus *Nigrospora* Zimm. (R.K. Saxena).

### ***Exochalara* W. Gams & Hol.-Jech.**

Crous et al (2018b) treat this genus as a member in *Neolauriomycetaceae* (K. Bensch).

### ***Exophiala* J.W. Carmich.**

This is a species-rich genus of black yeast-like fungi, polyphyletic within *Chaetothyriales*. The type species, *E. salmonis*, and most members of this genus belong in *Herpotrichiellaceae*, but some species are related to other chaetothyrialean families, such as *Trichomeriaceae* (Madrid et al. 2016) (H. Madrid).

### ***Extremaceae* Quaedvl. & Crous**

*Paradevriesiaceae* was introduced by Crous et al. (2019) and comprises *Paradevriesia compacta* (CBS 118294), *P. Americana* (CBS 117726), and *P. pseudoamericana* (CPC 16174). However, Crous et al. (2019) did not include sequence of *Extremaceae* in their phylogenetic tree. In Hongsanan et al. (in prep), *Paradevriesia* strains form a distinct lineages within *Extremaceae*. Hence, Hongsanan et al. (in prep.) regarded *Paradevriesiaceae* as a synonym of *Extremaceae* (S. Hongsanan & N. Wijayawardene).

### ***Flabellascoma* A. Hashim. et al.**

Hashimoto et al. (2018) proposed this genus to accommodate two species which were previously in the *Lophiostoma bipolare* species complex (S. Fryar).

### ***Flagellospora* Ingold**

Ekanayaka et al. (2019) retrieved this genus as a distinct phylogenetic lineage without support. We propose it here as *Leotiales* genera *incertae sedis* based on the placement of *F. curvula*, the type species, in the 15-gene tree of Johnston et al. (2019) (D. Haelewaters).

### ***Flavignomonina* N. Jiang et al.**

Jiang et al. (2019c) proposed this new genus based on morphological and molecular data with synnemata similar to *Synnemaspora* but differ in orange synnematal tips and hyaline conidia (S. Tibpromma).

### ***Fomitopsidaceae* Jülich**

Zmitrovich (2018) treated *Adustoporiaceae* Audet, *Amyloporiaceae* Audet, *Fibroporiaceae* Audet, *Lentoporiaceae* Audet, *Pycnoporellaceae* Audet, *Rhodontiaceae* Audet and *Sarcoporiaceae* Audet as synonyms of *Fomitopsidaceae* (V. Papp).

**Fonsecaea** Negroni

This genus currently includes eight species, most of which are associated with infections in humans. Phylogenetically, *Fonsecaea* belongs in *Herpotrichiellaceae* (Arzanlou et al. 2007, Madrid et al. 2016, Dong et al. 2018) (H. Madrid).

**Foveodiporites** C.P. Varma & Rawat emend. Kalgutkar & Janson. (fossil)

*Punctodiporites* C.P. Varma & Rawat is a later synonym of *Foveodiporites* as emended by Kalgutkar & Jansonius (2000) (R.K. Saxena).

**Frasnacritetrus** Taug. emend. R.K. Saxena & S. Sarkar (fossil)

Taugourdeau (1968) originally described this genus under *Acritarcha incertae sedis* from the Late Devonian (Frasnian) sediments of France. Kendrick & Carmichael (1973) published a list of staurosporous genera and their illustrations which strongly suggests that *Frasnacritetrus* is a fossil representative of *Tetraploa* Berk. & Broome, hence its placement under *Acritarcha incertae sedis* by Taugourdeau (1968) does not seem justified. All the seven assemblages studied by Saxena & Sarkar (1986), wherefrom the present microfossils have been recovered, contain poaceous pollen as well. Since *Tetraploa* mainly grows on Poaceae, the association of *Frasnacritetrus* with poaceous pollen is considered a supporting evidence for the affinity of *Frasnacritetrus* with *Tetraploa* (R.K. Saxena).

**Frutidella** Lalb

Kistenich et al. (2018) transferred this genus from the *Ramalinaceae* to the *Lecanoraceae* (E. Timdal).

**Fuscosclera** Hern.-Restr. et al.

Johnston et al (2019) accepted this genus in *Mollisiaceae* (D. Haelewaters).

**Fusichalara** S. Hughes & Nag Raj

*Fusichalara minuta* clustered in the family *Sclerococcaceae* (Réblová et al. 2016, Yu et al. 2018), but not type species (H. Zhang).

**Fusiformisporites** Rouse (fossil)

*Striadyadosporites* Dueñas is a later taxonomic synonym of *Fusiformisporites* (R.K. Saxena).

**Galbinothrix** Frisch et al.

This genus was recently introduced from Japan and Korea by Frish et al. (2018). Multi-gene phylogenetic analyses revealed that the monotypic genus formed a distinct clade together with *Chrysothrix*, *Melarthonia*, and *Arthonia* (P. Rodriguez-Flakus).

**Geesterania** Westphalen, Tomšovský & Rajchenberg

Westphalen et al. (2018) introduced this genus in *Meruliaceae* to accommodate *Junghuhnia carneola* (Bres.) Rajchenb. and *Geesterania davidii* Westphalen & Rajchenberg. (V. Papp).

**Gelatinoamylaria** Prasher & R. Sharma

Prasher et al. (2016) introduced *Gelatinoamylaria* as a new genus to accommodate a species with gelatinous apothecia and amyloid ascospores. It is tentatively placed in *Dermateaceae* but no sequences are available. It should be analyzed phylogenetically to determine its true systematic position (I. Kušan & N. Matočec).

**Gelatinosporium** Peck

This genus belongs to *Tympanidaceae* following the family concept of Baral (2016) and Quijada et al. (2020) (N. Wijayawardene).

***Geonectria*** Lechat & J. Fourn.

This is newly described genus (Lechat et al. 2018b) that belongs to *Bionectriaceae* (I. Kušan & N. Matočec).

***Gloeoporellus*** Zmitr.

Justo et al. (2017) showed that *Tyromyces merulinus* (Berk.) G. Cunn. forms a distinct phylogenetic lineage in the family Incrustoporiaceae. Hence, Zmitrovich (2018) introduced the monotypic genus *Gloeoporellus* to accommodate *Tyromyces merulinus* (V. Papp).

***Gloniales*** Jayasiri & K.D. Hyde

Jayasiri et al. (2018) introduced this order as a distinct sister clade to the *Mytinidiales* (S. Fryar).

***Grovesiella*** M. Morelet

Previously placed in *Tympanidaceae*. However, *G. abieticola*, the type species of the genus, was retrieved as a member of *Godroniaceae* in the ITS tree of Johnston et al. (2019) (D. Haelewaters).

***Gymnostellatospora*** Udag. et al.

Previously regarded as a member of *Myxotrichaceae* (Baral 2016), this genus is now placed in *Pseudeurotiaceae*, *Thelebolales* based on the ITS phylogeny of Johnston et al. (2019). This placement agrees with the suggestion of Minnis & Lindner (2013) to consider the genera *Geomyces*, *Gymnostellatospora*, *Leuconeurospora*, *Pseudeurotium* and *Pseudogymnoascus* as members of the family *Pseudeurotiaceae* (D. Haelewaters).

***Hanseniaspora*** Zikes

This teleomorph genus has a priority over its anamorphic counterpart, *Kloeckera*. *Kloeckera* species have recently been transferred here (Kurtzman & Boekhout 2017, Čadež et al. 2019) (W.P. Pfliegler & E. Horváth).

***Harmoniella*** V.N. Boriss.

This enigmatic genus currently includes two species, the generic type *H. chrysocephala*, and *H. campanaensis*. They have been collected on plant material in Ukraine and Chile, respectively. Both are apparently non-culturable fungi and so far it has been impossible to generate DNA sequence data of them. No sexual morph is known for *Harmoniella* (H. Madrid).

***Hemigraphaceae*** D.Q. Dai & K.D. Hyde

Dai et al. (2018) introduced this family in *Asterinales* to accommodate *Hemigrapha* (Müll. Arg.) D. Hawksw. (N. Wijayawardene).

***Hemiphacidiaceae*** Korf

Ekanayaka et al. (2019) reinstated this family but careful analysis of previous work shows that this decision is flawed. Pärtel et al. (2017) included in their phylogenetic analysis the type species of the genus *Cenangium*, *C. ferruginosum*, to find that it is positioned in the clade that Ekanayaka et al. (2019) refer to as *Hemiphacidiaceae* but truly is *Cenangiaceae*. The clade named “*Cenangiaceae*” by Ekanayaka et al. (2019) is regarded as *Helotiales* genera *incertae sedis* by other studies, including Zhao et al. (2016) Pärtel et al. (2017), Johnston et al. (2019). This clade includes “*Cenangium*” *acuum*, *Piceomphale bulgarioides*, and *P. pinicola* (basionym *Moellerodiscus pinicola*). In this outline, we follow Pärtel et al.’s (2017) emended concept of *Cenangiaceae* including members of the previous *Hemiphacidiaceae* (see *Cenangiaceae*) (D. Haelewaters).

***Hemipholiota*** (Singer) Bon

Bon (1986) elevated *Pholiota* subgen. *Hemipholiota* to genus level and typified by *Hemipholiota populnea* (Singer) Bon as the type species. Molecular data analyses confirmed that *Hemipholiota* is a separate genus from *Pholiota* with a unique and uncertain phylogenetic position, distinct from *Strophariaceae* (Moncalvo et al. 2002, Gulden et al. 2005) (B. Dima).

***Henssenia*** Ertz, R.S. Poulsen & Søchting

Ertz et al. (2017a) introduced this genus and showed that it belongs in *Koerberiaceae* (N. Wijayawardene).

***Hermanssonia*** Zmitr.

Justo et al. (2017) showed that *Phlebia centrifuga* P. Karst. forms a distinct phylogenetic lineage in the family Meruliaceae. Hence, Zmitrovich (2018) introduced the monotypic genus *Hermanssonia* to accommodate *Phlebia centrifuga* (V. Papp).

***Herpomycetales*** Haelew. & Pfister

Haelewaters et al. (2019b) introduced this new order to accommodate the genus *Herpomycetes*, which was previously placed in *Laboulbeniales*. Blackwell et al. (2020) found high support for the polyphyly of the thallus-forming *Laboulbeniomycetes*, i.e. orders *Herpomycetales* and *Laboulbeniales* (D. Haelewaters).

***Hesperomyces*** Thaxt.

Wijayawardene et al. (2017a) mentioned eleven species for this genus. This number will be much higher, after Haelewaters et al. (2018a) found that *H. virescens* Thaxt. is a complex of multiple species, each with their own host. At least 10 species can be recognized within *H. virescens* sensu lato (D. Haelewaters, unpubl. data) (D. Haelewaters).

***Heufleria*** Auersw.

Baral (2016) and Ekanayaka et al. (2019) accepted this genus in *Rhytismataceae* (N. Wijayawardene & D. Haelewaters).

***Hilidicellites*** Kalgutkar & Janson. (fossil)

Kalgutkar & Jansonius (2000) opined that *Dicellaesporites appendiculatus* Sheffy & Dilcher is a misfit in *Dicellaesporites* Elsik and therefore they proposed *Hilidicellites* to accommodate it (R.K. Saxena).

***Hoffmannoscypha*** Stielow, Göker & Klenk

This genus, erected for a single species (*Geopora pellita*), was recently shown to represent a separate phylogenetic lineage (Van Vooren et al. 2017) (I. Kušan & N. Matočec).

***Hortaea*** Nishim. & Miyaji

This genus currently includes two species, *H. werneckii* and *H. thailandica*. *Hortaea werneckii* is a well-known clinically relevant fungus, causing superficial skin infections in humans (Marchetta et al. 2018) (H. Madrid).

***Hyaloscyphaceae*** Nannf.

This family is currently polyphyletic. Based on a four-gene phylogenetic analysis, Han et al. (2014) found that *Hyaloscyphaceae* sensu lato is a heterogeneous assemblage of 10 hyaloscyphaceous taxa. In Johnston et al. (2019), three highly supported clades were retrieved, Han Clade 4 (*Gamarada*, *Hyphodiscus*, *Hyphopeziza*, *Venturiocistella*), Han Clade 7 (*Amicodisca*, *Dematioscypha*), and *Hyaloscyphaceae* (“*Chalara*” *longipes*, *Hyalopeziza*, type genus

*Hyaloscypha*, *Meliniomyces*, *Olla*, *Rhizoscyphus*). More taxa and sequence data are needed to resolve the classification and taxonomy within *Hyaloscyphaceae sensu lato* (D. Haelewaters).

***Hydnocystis* Tul.**

*Stephensia* Tul. & C. Tul. has been treated as a synonym of *Hydnocystis* by Kumar et al. (2017) (P. Alvarado).

***Hydnophanerochaete* Sheng H. Wu & C.C. Chen**

Chen et al. (2018) introduced this monotypic genus in Meruliaceae to accommodate *Phanerochaete odontoidea* Sheng H. Wu (V. Papp).

***Hypomontagnella* Sir et al.**

Lambert et al. (2019) erected the new genus *Hypomontagnella* Sir et al. (*Hypoxylaceae*) based on a comparison of molecular and morphological data for *Hypoxylon monticulosum* and similar species. Interestingly, all strains so far cultured produce the selective antifungal polyketides of the sporothiolide type, which can therefore be regarded as a chemotaxonomic marker (M. Stadler).

***Hypoxylonites* Elsik. (fossil)**

*Hypoxylonsporites* P. Kumar is a later taxonomic synonym of *Hypoxylonites* Elsik (Elsik 1990) (R.K. Saxena).

***Immotthia* M.E. Barr**

Hyde et al. (2017) accommodated *Immotthia* in *Roussoellaceae* based on morphological characteristics resembling the genus *Roussoella*. However, phylogenetic affinity of the genus needs to be confirmed by molecular data (R. Phookamsak).

***Inapertisporites* Hammen (fossil)**

*Triporisporonites* Sheffy & Dilcher is a later taxonomic synonym of *Inapertisporites*. *Inapertisporites* "Hammen ex Rouse" is illegitimate name being a later homonym (and later taxonomic synonym) of *Inapertisporites* Hammen (R.K. Saxena).

***Intralichen* D. Hawksw. & M.S. Cole**

This genus was introduced by Hawksworth & Cole (2002) to accommodate dematiaceous hyphomycetes occurring in lichens, some of which were previously placed in *Bispora* or *Trimmatostroma*. The only available DNA sequence is labelled '*Bispora*' *christiansenii* IMI 227584, a sequence of 18S rDNA from a study by Sert et al. (2007), with the GenBank number AM279680. BLAST searches with this sequence, however, revealed that it shows 99% identity to yeasts of the genera *Candida*, *Debaryomyces* and *Meyerozyma*, indicating that probably a contaminant was sequenced (H. Madrid).

***Jansoniisporites* Kalgutkar (fossil)**

*Brachysporisporites endophragma* Kalgutkar & Sigler is a misfit in *Brachysporisporites* R.T. Lange & P.H. Sm. and therefore Kalgutkar (1997) proposed *Jansoniisporites* to accommodate it (R.K. Saxena).

***Japewia* Tønsberg**

Kistenich et al. (2018) transferred this genus from the *Ramalinaceae* to the *Lecanoraceae* (E. Timdal)

***Junewangiaceae* J.W. Xia & X.G. Zhang**

See under *Acrodictyaceae* (J. Ma).



***Kellermania*** Ellis & Everh.

Based on phylogenetic information and morphology, Minnis et al. (2012) placed *Alpakesa*, *Piptarthron*, *Planistroma*, and *Planistromella* as synonyms of *Kellermania* (A.J.L. Phillips).

***Khaleijomyces*** Abdel-Wahab

Abdel-Wahab et al (2018) erected this new genus for a new marine species within *Juncigenaceae* (S. Fryar).

***Kiliasia*** Hafellner

Kistenich et al. (2018) resurrected this genus in the *Ramalinaceae* (E. Timdal).

***Knufia*** L.J. Hutchison & Unter.

The molecular phylogeny and taxonomy of this genus has been studied by Tsuneda et al. (2011b), Isola et al. (2016) and Mehrabi et al. (2018) among others, revealing its placement in *Trichomeriaceae* (H. Madrid).

***Kumarisporites*** Kalgutkar & Janson. (fossil)

*Imprimospora ramanujamii* Kumar is a misfit in *Imprimospora* and therefore Kalgutkar & Jansonius (2000) proposed *Kumarisporites* to accommodate it (R.K. Saxena).

***Kusaghiporia*** J. Hussein et al.

Hussein et al. (2018) described this genus with *K. usambarensis* Hussein J., Tibell S. & Tibuhwa as the type species and showed that it belongs to *Laetiporaceae* (V. Papp).

***Kutchiathyrites*** R.K. Kar (fossil)

Kalgutkar & Jansonius (2000) opined that *Kutchiathyrites* is a multicellular spore/ conidium showing a clear attachment area, scar or pore. *Kutchiathyrites eccentricus* R.K. Kar demonstrates close similarity to the conidia of the hyphomycetous fungus *Mycocenterolobium platysporum* Goos (R.K. Saxena).

***Laboulbenia*** Mont. & C.P. Robin

The most recent number of species in this genus is 633 (Song et al. 2019). This number will likely increase in the future; based on a preliminary concatenated ITS-LSU rDNA dataset, Haelewaters et al. (2019a) showed that one of the most cosmopolitan taxa in the genus, *L. flagellata* Peyr., is a complex of species. A number of taxa were recently lectotypified in Haelewaters et al. (2015, 2019a) (D. Haelewaters).

***Lachnopsis*** Guatimosim et al.

*Lachnopsis* was introduced in *Lachnaceae* to accommodate two species that are only distinguishable from *Lachnum* based on DNA sequence data (Guatimosim et al. 2016) (D. Haelewaters).

***Lasionectriella*** Lechat & J. Fourn.

Lechat et al. (2016a) described this genus to accommodate two species within the family *Bionectriaceae* (I. Kušan & N. Matočec).

***Lecanoraceae*** Körb. (= *Carbonicolaceae* Bendiksby & Timdal)

Kraichak et al. (2018a) regarded *Carbonicolaceae* as a synonym of *Lecanoraceae* (N. Wijayawardene).

***Lentimurispora*** N.G. Liu et al.

Liu et al. (2018a) introduced this genus and *Lentimurisporaceae* which has a distinct lineage in *Pleosporales* (S. Fryar).

***Lentistoma*** A. Hashim.

Hashimoto et al. (2018) proposed this genus to accommodate *Lentistoma bipolare*, which was transferred from *Lophiostoma* based on molecular and morphological characters (S. Fryar).

***Lentithecium*** K.D. Hyde et al.

*Lentithecium aquaticum* Yin. Zhang, J. Fourn. & K.D. Hyde, *L. arundinaceum* (Sowerby) K.D. Hyde, J. Fourn. & Yin. Zhang, and *L. lineare* (E. Müll. ex Dennis) K.D. Hyde, J. Fourn. & Yin. Zhang do not group with *L. fluviatile* (Aptroot & Van Ryck.) K.D. Hyde, J. Fourn. & Yin. Zhang, the type species of the genus *Lentithecium* in molecular phylogenetic analysis (Mycobank: see under *Lentithecium carbonneanum* J. Fourn., Raja & Oberlies) (H. Raja).

***Leptoparies*** A. Hashim.

Hashimoto et al. (2018) proposed this genus to accommodate a single species within the *Lophiostomataceae* (S. Fryar).

***Leptosillia*** Höhn.

Voglmayr et al (2019) demonstrated that the genus *Leptosillia* belongs to the *Xylariales* based on a multi locus DNA sequence analyses of SSU-ITS-LSU rDNA, rpb1, rpb2, tef1 and tub2. They also established the genera *Cresporhaphis* and *Liberomyces* are congeneric with *Leptosillia* and erected the new family *Leptosilliaceae*. A number of taxa were epi-or lectotypified, and the new genus *Furfurella* was erected in family *Delonicicolaceae* (M. Stadler).

***Lichinodium*** Nyl.

*Lichinodium* was previously placed in class *Lichinomycetes*. However, Prieto et al. (2019) showed that this genus is placed within *Leotiomycetes* as a previously unrecognized lineage and introduced a new order (*Lichinodiales*) and family (*Lichinodiaceae*) (M. Prieto).

***Lithophila*** Selbmann & Isola

This monotypic genus, typified by *L. guttulata*, occurs on marble and was placed in *Trichomeriaceae* based on multilocus phylogenetic analyses (Isola et al. 2016) (H. Madrid).

***Liua*** Phook. & K.D. Hyde

Phookamsak et al. (2019) introduced a monotypic genus *Liua* to accommodate camarosporium-like species and is typified by *L. muriformis* Phookamsak, H.B. Jiang & K.D. Hyde. Multi-gene phylogenetic analyses showed that *Liua* formed a sister lineage with *Cycasicola* in *Thyridariaceae* (R. Phookamsak).

***Lodderomyces*** Van der Walt

Expected transfer of species to *Candida* Berkhout to comply with the Melbourne Code (Kurtzman & Boekhout 2017) (W.P. Pfliegler and E. Horváth).

***Lonicericola*** Phook. et al.

Phookamsak et al. (2019) introduced the new genus *Lonicericola* based on DNA sequence analyses. The genus formed a distinct clade closely related with *Pseudomonodictys* and *Paratrimmatostroma* in *Parabambusicolaceae* (R. Phookamsak).

***Lotinia*** Pérez-Butrón et al.

This genus, erected for a single species (*L. verna*), represents a separate phylogenetic lineage (Van Vooren et 2017) (I. Kušan & N. Matočec).

***Manglicola*** Kohlm. & E. Kohlm.

*Manglicola* consists of two species, but molecular data supports only *M. guatemalensis* Kohlm. & E. Kohlm. showing phylogenetic affiliations to *Manglicolaceae*, while *M. samuelsii* Huhndorf, was placed in the *Hypsostromataceae* based on morphological data (Huhndorf 1994). Sequence data from *M. samuelsii* is necessary to place it within a phylogenetic framework and assess if the genus is polyphyletic within the *Dothideomycetes* (H. Raja).

***Marasasiomyces*** Crous

Based on ITS and LSU sequence phylogeny, Crous et al. (2015a) introduced *Marasasiomyces* as a new genus for tiarosporella-like fungi with long-necked conidiomata covered in brown setae (A.J.L. Phillips).

***Marthamycetales*** P.R. Johnst. & Baral

Introduced in Johnston et al. (2019) to accommodate the phylogenetically isolated family *Marthamycetaceae* within *Leotiomycetes* (D. Haelewaters).

***Masonhalea*** Kärnefelt

Thell et al. (2018) proposed to resurrect the genus (A. Tsurukau).

***Massariosphaeria*** (E. Müll.) Crivelli

This genus was firstly recognized as a section of *Leptosphaeria* (Müller 1950). However, *Massariosphaeria* was introduced by Crivelli (1983). Wang et al. (2007) showed that *Massariosphaeria* is polyphyletic. However, the type species *M. phaeospora* is closely related to the type species of *Cyclothyriellaceae*, *Cyclothyriella rubronotata*. Therefore, *Massariosphaeria* is placed in *Cyclothyriellaceae* (Jaklitsch et al. 2016a, Wijayawardene et al. 2018a) (S. Hongsanan).

***Mathurisorites*** Kalgutkar & Janson. (fossil)

Kalgutkar & Jansonius (2000) opined that *Pluricellaesporites ellipticus* Y.K. Mathur & K. Mathur is a misfit in *Pluricellaesporites* Hammen and therefore they proposed *Mathurisorites* to accommodate it (R.K. Saxena).

***Megalaria*** Hafellner

Kistenich et al. (2018) regarded that *Catillochroma* Kalb and *Lopezaria* Kalb & Hafellner as synonyms of this genus (E. Timdal).

***Melaspileellaceae*** D.Q. Dai & K.D. Hyde

Dai et al. (2018) introduced this family in *Asterinales* to accommodate *Melaspileella* (P. Karst.) Vain (N. Wijayawardene).

***Metschnikowiaceae*** T. Kamienski

Family status is expected to change following the phylogenetic relationships of the genera of *Debaryomycetaceae* and *Metschnikowiaceae* (Shen et al. 2016) (W.P. Pfliegler & E. Horváth).

***Micraspidales*** Quijada & Tanney

Previously, the genus *Micraspis* was placed in different families (*Cryptomycetaceae*, *Helotiaceae*, *Phacidiaceae*, *Tympanidaceae*). Because of its isolated phylogenetic position within *Leotiomycetes*, Quijada et al. (2020) established the family *Micraspidaceae* and order *Micraspidales* to accommodate the genus (D. Haelewaters).

***Microcaliciaceae*** Tibell

Kraichak et al. (2018a) accepted the family as in *Pertusariales* (N. Wijayawardene).

***Microkamienskia*** Corazon-Guivin et al.

Corazon-Guivin et al. (2019) introduced *Microkamienskia* with two new combinations. This genus is an arbuscular mycorrhizal fungus and similar to *Kamienskia* in spore but differ in size (Błaszowski et al. 2015) (S. Tibpromma).

***Minimelanolocus*** R.F. Castañeda & Heredia

This genus is currently considered a putative member of *Herpotrichiellaceae*, although no DNA sequence data is available for the type species, *M. navicularis* (H. Madrid).

***Mniaeciaceae*** Baral

Introduced in Johnston et al. (2019), elevating the *Mniaecia* lineage sensu Baral (2016) to family level. *Mniaeciaceae* is sister to *Leotiaceae* within *Leotiales* (D. Haelewaters).

***Monoporisorites*** Hammen (fossil)

*Polyporisorites* Hammen, *Psiammopomopiospora* Sal.-Cheb. & Locq. and *Reticulatisporonites* Elsik are later taxonomic synonyms of *Monoporisorites* Hamme Dong n (Kalgutkar & Jansonius 2000) (R.K. Saxena).

***Mortierella*** Coem.

There are 247 records of *Mortierella* species in the Species Fungorum, but according to Yadav et al. (2015) nearly 100 of validated species have been described (A. L. C. M. de A. Santiago).

***Mossopisorites*** Kalgutkar & Janson. (fossil)

Kalgutkar & Jansonius (2000) opined that *Triporicellaesporites multicellulus* Ke & Shi is a misfit in *Triporicellaesporites* Ke & Shi and therefore they proposed *Mossopisorites* to accommodate it (R.K. Saxena).

***Mucoharknessia*** Crous et al.

Based on ITS and LSU sequence phylogeny, Crous et al. (2015a) introduced *Mucoharknessia* as a new genus for tiarosporella-like fungi that resembles *Harknessia* (*Harknessiaceae*, *Diaporthales*), but are distinguished by having pycnidia that lack furfuraceous tissue around the ostiole and conidia with a mucoid apical appendage (A.J.L. Phillips).

***Mucor*** Fresen.

The greatest number of mucoralean species described to date belongs to *Mucor* with more than 300 species cited in literature (Jacobs & Botha 2008, Álvarez et al. 2011). Although the exact number of valid taxa is unknown, Gherbawy et al. (2010) stated the number of species may have ranged from 50 to 75 at the time of the study. Based on morphological characteristics, maximum growth temperature and mating experiments, Schipper (1973, 1975, 1976, 1978) monographed the genus and described 39 species, four varieties and 11 forms. Knowledge of the genus was subsequently expanded with a description of 26 new taxa [Mehrotra & Mehrotra (1979), Mirza et al. (1979), Subrahmanyam (1983), Chen & Zheng (1986), Schipper & Samson (1994), Watanabe (1994), Zalar et al. (1997), Pei (2000), Alves et al. (2002), Jacobs & Botha (2008), Hermet et al. (2012), Madden et al. (2012), Voglmayr & Cléménçon (2016), Li et al. (2016), Lima et al. (2017), Wanasinghe et al. (2018), De Souza et al. (2018), de Lima et al. (2018)]. (A. L. C. M. de A. Santiago)

***Muellerella*** Müll. Arg.

Muggia et al. (2015) hypothesized that the genus represents sexual stage of *Lichenodiplis* (A. Suija).

***Multicellaesporites*** Elsik emend. P. Kumar (fossil)

Kumar (1990) emended the generic diagnosis. *Warkallisporonites* Ramanujam & K.P. Rao is a later taxonomic synonym of *Multicellaesporites* Elsik (R. K. Saxena).

***Mycobilimbia*** Rehm

Kistenich et al. (2018) transferred this genus from the *Lecideaceae* to the *Ramalinaceae* (E. Timdal).

***Mycocarpon*** S.A. Hutch. (fossil)

Hutchinson (1955) opined that *Sporocarpon pachydermum* Will. is a misfit in *Sporocarpon* Will. and therefore he proposed *Mycocarpon* to accommodate it (R.K. Saxena).

***Mycoceros*** D. Magyar & Z. Merényi

This genus was recently described to accommodate a species parasitizing *Pinaceae* grain pollens. Based on an ITS+LSU phylogeny, it was clearly placed within *Orbiliomycetes* by Magyar et al. (2018) (I. Kušan & N. Matočec).

***Mycomicrothelia*** Keissl.

All the tropical species have been placed in *Bogoriella* (*Trypetheliaceae*, *Trypetheliales*), but type and other temperate taxa are still in *Mycomicrothelia* (Aptroot & Lücking 2016) (A. Aptroot).

***Mycopappus*** Redhead & G.P. White

Baral (2016) and Ekanayaka et al. (2019) accepted this genus as in *Sclerotiniaceae* (N. Wijayawardene).

***Mycosphaerellaceae*** Lindau

We accept only 111 genera which have been confirmed as well-established genera in *Mycosphaerellaceae* by phylogenetic analyses. Hongsanan et al. (2020) lists doubtful genera in *Mycosphaerellaceae* based on Videira et al. (2017) (N. Wijayawardene & R. Phookamsak).

***Myelorrhiza*** Verdon & Elix

Kistenich et al. (2018) transferred this genus from the *Cladoniaceae* to the *Ramalinaceae* (E. Timdal).

***Myochroidea*** Printzen et al.

Printzen et al. (2008) accommodate *Myochroidea* including four species of the *Lecidea leprosula* group such as *M. leprosula* (Arnold) Printzen, T. Sprib. & Tønsberg, *M. porphyrospoda* (Anzi) Printzen, T. Sprib. & Tønsberg, *M. rufofusca* (Anzi) Printzen, T. Sprib. & Tønsberg and *M. minutula* Printzen, T. Sprib. & Tønsberg based on morphological key characters. Although no phylogenetic analyses have been performed, the authors suggested to include this genus either in *Psoraceae*, *Pilocarpaceae*, or *Ramalinaceae* but to confirm the final placement of *Myochroidea* in the system, molecular analyses are needed (P. Rodriguez-Flakus).

***Myrmecocystis*** Harkn.

This genus was recently resurrected by Alvarado et al. (2018) (P. Alvarado).

***Myxotrichaceae*** Currah

Johnston et al. (2019) found high support for the placement of this family in the pezizelloid clade of *Helotiales*, placed sister to *Amorphothecaceae*. In the ITS tree of Johnston et al. (2019), *Amorphothecaceae* consisting of *Byssosascus*, "*Malbranchea*" *flavorosea*, *Myxotrichum* and *Oidiodendron* was retrieved in a maximum supported branch sister to *Amorphotheca resiniae* (D. Haelewaters).

#### ***Neocelosporium*** Crous

Crous et al. (2018) introduced a new family *Neocelosporiaceae* and new order *Neocelosporiales* to accommodate the genus *Neocelosporium*, which represents a distinct lineage in *Dothideomycetes*. However, Hongsanan et al. (in prep.) found that *Neocelosporiales* is placed within the order *Dothideales*. As a result, *Neocelosporiales* is here regarded as a synonym of *Dothideales* and *Neocelosporiaceae* is accommodated in *Dothideales* (N. Wijayawardene & S. Hongsanan).

#### ***Neodendryphiella*** Iturrieta-González et al.

Iturrieta-González et al. (2018) introduced this new genus with three new species in *Dictyosporiaceae*. Currently, the genus comprises three species viz. *N. mali*, *N. michoacanensis* and *N. tarraconensis* (the type species). *Neodendryphiella* differs from *Dendryphiella* in lacking of nodulose conidiophores bearing conidiogenous cells with pores surrounded by a thickened and darkened wall (S. Fryar & S. Somrithipol).

#### ***Neoeutypella*** M. Raza et al.

*Neoeutypella* was introduced as a monotypic genus in Phookamsak et al. (2019) to accommodate *N. baoshanensis* M. Raza et al. and the strains identified as "*Eutypella caricae* (strains EL51C and GL08362)". Based on phylogenetic analyses, *Neoeutypella* formed a distinct lineage, clustered with *Diatrypella* species but the genus differs from *Diatrypella* in having large entostromata, 8-spored, spindle-shaped asci and allantoid ascospores (Phookamsak et al. 2019) (R. Phookamsak).

#### ***Neolauriomycetaceae*** Crous

*Neolauriomycetaceae* was introduced within *Helotiales* by Crous et al. (2018) to accommodate three genera: *Exochalara*, *Lareunionomyces*, and *Neolauriomycetes* (D. Haelewaters).

#### ***Neomelanconiella*** Crous

Crous et al. (2018) introduced this genus and showed that it has a distinct lineage in *Diaporthales*. A new family *Neomelanconiellaceae* is introduced (N. Wijayawardene).

#### ***Neomelanconiella*** Crous

Crous et al. (2018) introduced this genus and showed that it has a distinct lineage in *Diaporthales*. Hence introduced the new family *Neomelanconiellaceae* (N. Wijayawardene).

#### ***Neoscytalidium*** Crous & Slippers

Two species of *Neoscytalidium* were frequently reported from opportunistic infections in humans, i.e. *N. dimidiatum* and *N. hyalinum*. The latter species, however, is currently considered a hyaline mutant of *N. dimidiatum* (Huang et al. 2016). *Neoscytalidium* currently includes three species (H. Madrid).

#### ***Neoseptorioides*** Crous et al.

This genus was introduced for species morphologically distinct from *Septorioides* (Crous et al. 2015a) (A.J.L. Phillips).

#### ***Neostagonosporella*** C.L. Yang et al.

Yang et al. (2019) introduced a holomorph genus *Neostagonosporella* to accommodate massarina-like taxon collected from living bamboo culms from China. Multi-gene phylogenetic analyses revealed the genus in *Phaeosphaeriaceae* (R. Phookamsak).

***Neptunomyces*** M. Gonçalves et al.

This monotypic genus was recently introduced by Gonçalves et al. (2019). Based on phylogenetic analysis this genus is closest to *Xenocamarosporium* but conidial morphology is distinct (Gonçalves et al. 2019) (S. Tibpromma).

***Noosia*** Crous et al.

Recent phylogenetic analyses indicated that *Noosia* belongs to Periconiaceae (Tanaka et al. 2015, Thambugala et al. 2017) (D. Wanasinghe).

***Nothomitra*** Maas Geest.

According to Hustad et al. (2013) and Hustad & Miller (2015), this genus is phylogenetically close to *Sarcoleotia* in a basal clade of *Geoglossomycetes* (I. Kušan & N. Matočec).

***Oblongocollomyces*** Tao Yang & Crous

This genus was introduced by Yang et al. (2017) to accommodate *Sphaeropsis variabilis* (A.J.L. Phillips).

***Odontoefibula*** C.C. Chen & Sheng H. Wu

Chen et al. (2018) introduced this monotypic genus in *Phanerochaetaceae* to accommodate the new species *Odontoefibula orientalis* C.C. Chen & Sheng H. Wu (V. Papp).

***Odoria*** V. Papp & Dima

Papp & Dima (2018) introduced this new monotypic genus in *Meruliaceae* to accommodate the threatened old-growth forest polypore, *Aurantiporus alborubescens* (Bourdot & Galzin) H. Jahn (V. Papp).

***Ophiobolopsis*** Phook. et al.

Phookamsak et al. (2017) introduced *Ophiobolopsis* to accommodate ophiobolus-like species in *Phaeosphaeriaceae* based on multi-gene phylogenetic analyses (R. Phookamsak).

***Opilionomyces*** Santam. et al.

Santamaria et al. (2017) introduced this monotypic genus and confirmed its placement in family *Laboulbeniaceae*, subfamily *Laboulbenioideae*, tribe *Laboulbenieae* based on morphological characters (D. Haelewaters).

***Ornasporonites*** Ramanujam & K.P. Rao (fossil)

This monotypic genus differs from *Fusiformisporites* because the latter possesses only a single septum and is longitudinally ribbed and inaperturate (R.K. Saxena).

***Oscarbrefeldia*** Holterm.

Doubtful genus not treated by Kurtzman (2011) (W.P. Pfliegler & E. Horváth).

***Ovadendron*** Sigler & J.W. Carmich.

This fungal genus is listed as a member of *Onygenales* in de Hoog et al. (2015), but its family placement needs to be thoroughly assessed (H. Madrid).

***Pachydisca*** Boud.

Dumont (1975) proposed to exclude the genus from *Sclerotiniaceae* and place it in *Helotiales* based on morphological study of the type species, *P. guernisacii*. Jaklitsch et al. (2016a) treated this genus as a synonym of *Discinella* Boud. However, Species Fungorum (2020) lists 32 accepted species. In this outline, *Pachydisca* is regarded as *Helotiales* genera *incertae sedis* (D. Haelewaters).

***Pachyphlodes* Zobel**

*Scabropezia* Dissing & Pfister has been regarded as a synonym of *Plicariella* or *Pachyphlodes* Zobel in Healy et al. (2018) (P. Alvarado).

***Palaeoamphisphaerella* Ramanujam & Srisailam (fossil)**

*Imprimospora* Norris is considered as a later synonym of *Palaeoamphisphaerella* (R.K. Saxena).

***Palaeomyces* Mesch. (fossil)**

*Phycomycetes* Ellis, *Palaeomyces* Renault ex Kidston & Lang, *Rhizophagites* E.J. Butler ex Rosend., *Propythium* Elias, *Aplanosporites* R.K. Kar, *Glomites* T.N. Taylor, W. Remy, Hass & Kerp are later taxonomic synonyms of *Palaeomyces* (R.K. Saxena).

***Palaeopericonia* Ibañez & Zamuner (fossil)**

The material is made up of only asexual structures represented by conidia produced on single conidiophores. The closely related genera are *Periconia* Tode, *Torula* Pers., *Stachybotrys* Corda, *Humicola* Traaen, *Thermomyces* Tsikl. and *Chlamydomyces* Bainier (Ibañez & Zamuner 1996) (R.K. Saxena).

***Palaeophoma* Singhai (fossil)**

One-celled hyaline, bent or curved or lunate conidia, and a spherical and brown pycnidium have been shared by the living genus *Selenophoma* Maire (Barnet 1960). But the fossil fungus also possesses spherical conidia which are not present in *Selenophoma*. Moreover, *Palaeophoma* has non-ostiolate pycnidium whereas *Selenophoma* possesses a definite ostiole (R.K. Saxena).

***Palaeosclerotium* G.W. Rothwell (fossil)**

Dennis (1976) opined that *Palaeosclerotium* represents an intermediate evolutionary stage between Ascomycetes and Basidiomycetes. Pirozynski & Weresub (1979) stated that *Palaeosclerotium* is neither an ascomycete nor a basidiomycete, but an early dikaryotic fungus and a representative of a group that links *Basidiomycota* with extinct, probably symbiotic, lichen-like nematophytes (R.K. Saxena).

***Paleoslimacomycetes* Kalgutkar & Sigler (fossil)**

Conidia of this monotypic genus show some morphological similarity with those of extant *Slimacomycetes monospora* (W.B. Kendr.) Minter, which was originally described by Kendrick (1958) in *Helicoma* Corda (R.K. Saxena).

***Pappia* Zmitr.**

Papp & Dima (2018) showed that *Aurantiporus fissilis* (Berk. & M.A. Curtis) H. Jahn ex Ryvardeen forms a distinct phylogenetic lineage in the family *Meruliaceae*. Hence, Zmitrovich (2018) introduced the new monotypic genus *Pappia* in *Meruliaceae* to accommodate *Aurantiporus fissilis* (V. Papp).

***Papulosporonites* Schmied. & A.J. Schwab (fossil)**

In *Polyadosporites* Hammen, the individual cells are less tightly appressed into a spherical mass than those in *Papulosporonites* (R.K. Saxena).



***Paracladophialophora*** Crous

This genus currently includes two species, *P. carceris* and *P. cyperacearum*. They form a distinct clade in *Chaetothyriales* for which the family *Paracladophialophoraceae* was recently proposed (H. Madrid).

***Parafenestella*** Jaklitsch & Voglmayr

Jaklitsch et al. (2018) proposed this new genus in the *Cucurbitariaceae* based on morphological and molecular characters. (S. Fryar)

***Parallopsora*** Kistenich et al.

Kistenich et al. (2018) introduced this genus in *Ramalinaceae* (E. Timdal).

***Paraophiobolus*** Phook. et al.

Phookamsak et al. (2017) introduced *Paraophiobolus* to accommodate ophiobolus-like species in *Phaeosphaeriaceae* based on multi-gene phylogenetic analyses (R. Phookamsak).

***Pararousoella*** Wanas. et al.

Wanasinghe et al. (2018) introduced a monotypic genus to accommodate roussoella-like species in *Thyridariaceae*. However, Phookamsak et al. (2019) accommodated the genus in *Rousoellaceae* based on multi-gene analyses and this concurred with Jiang et al. (2019a) and Karunarathna et al. (2019). (R. Phookamsak)

***Paratrimmatostroma*** Jayasiri et al.

Phookamsak et al. (2019) introduced the new genus *Paratrimmatostroma* based on multi-gene phylogenetic analyses coupled with morphological characteristic. *Paratrimmatostroma* is sister to *Pseudomonodictys* in *Parabambusicolaceae* based on phylogenetic analyses of a combined SSU, ITS, LSU and TEF1- $\alpha$  sequence dataset (Phookamsak et al. 2019). *Paratrimmatostroma* can be distinguished from *Pseudomonodictys* in forming sporodochia on host substrate and having branched, straight or flexuous conidia, with variable conidial shape such as helicoid, cylindrical, sigmoid, or reniform (Phookamsak et al. 2019) (R. Phookamsak).

***Parazalerion*** Madrid et al.

Phookamsak et al. (2019) introduced a monotypic conidial genus to accommodate zalerion-like taxon and is typified by *P. indica* Madrid, Gené, Cano & Guarro. The genus was isolated from soil in India and is characterized by having irregularly coiled, dematiaceous, multiseptate conidia which often form knots of cells. Phylogenetic analysis revealed that the genus formed a sister lineage with *Spirosphaera minuta* in *Microthyriales* (R. Phookamsak & H. Madrid).

***Parmulariales*** D.Q. Dai & K.D. Hyde

Dai et al. (2018) introduced this order to accommodate *Parmulariaceae* (N. Wijayawardene).

***Patinella*** Sacc.

*Patinella hyalophaea*, the type species of the genus, was retrieved near *Holwaya mucida* and its anamorph *Crinula caliciiiformis* in Johnston et al.'s (2019) ITS tree, as *Leotiomycetes* genera *incertae sedis*. In their 15-gene tree, the *Holwaya*–*Crinula* clade was placed sister to *Thelebolales* (*Pseudeurotiaceae*, *Thelebolaceae*) with high support (D. Haelewaters).

***Patinella*** Sacc.

The type species of *Patinella* was nested near the order *Thelebolales* (Hyde et al. 2017) by two phylogenies (based on ITS and LSU) together with *Ramgea* Brumm. and *Holwaya* Sacc. as a weakly supported sister clade to the family *Thelebolaceae*. More phylogenetic information is

needed to ascertain the true position of these three genera. It is best to place this genus into *Phacidiales incertae sedis* at the moment (I. Kušan & N. Matočec).

#### ***Peltigeraceae* Dumort.**

Kraichak et al. (2018a) regarded that *Lobariaceae* Chevall. and *Nephromataceae* Wetm. ex J.C. David & D. Hawksw. are synonyms of *Peltigeraceae* (N. Wijayawardene).

#### ***Perennicordyceps* Matočec & I. Kušan**

The genus *Perennicordyceps* was erected by Matočec et al. (2014) to segregate a monophyletic clade of four species aside from *Polycephalomyces* based on both molecular and non-molecular evidence. According to Crous et al. (2017), this genus is phylogenetically placed within *Ophiocordycipitaceae* as a sister clade to *Polycephalomyces* (I. Kušan & N. Matočec).

#### ***Pertusaria* DC.**

Several species were combined into other genera (Wei et al. 2017), but as no recent taxonomic revision of the genus is available, the exact number of species is obscure (M. Kukwa).

#### ***Petrophila* de Hoog & Quaedvl.**

This monotypic genus, typified by *P. incerta*, was placed in the family *Extremaceae* in a phylogenetic study by Isola et al. (2016) (H. Madrid).

#### ***Phacidiales* Bessey**

The order *Phacidiales* includes two families, *Helicogoniaceae* and *Phacidiaceae* (Johnston et al. 2019). Two lineages that were previously recognized in *Phacidiales* (sensu Baral 2016), *Mniaeciaceae* (referred to as *Mniaecia* lineage in Baral (2016)) and *Tympanidaceae*, are now recognized within *Leotiales* (D. Haelewaters).

#### ***Phaeopoacea* Thambug. et al.**

Thambugala et al. (2017) introduced *Phaeopoacea* to accommodate phaeosphaeria-like taxa in *Phaeosphaeriaceae* and is typified by *Phaeopoacea festucae*. Thambugala et al. (2017) also transferred *Phaeosphaeria phragmiticola* Leuchtm. to *Phaeopoacea* as *P. phragmiticola* (Leuchtm.) Thambugala & K.D. Hyde based on molecular data. The sexual and asexual morph connection of this genus is well-resolved (R. Phookamsak).

#### ***Phialina* Höhn.**

Baral (2016) and Ekanayaka et al. (2019) accepted this genus in *Pezizellaceae* (N. Wijayawardene).

#### ***Phialocephala* W.B. Kendr.**

*Phialocephala* is currently placed in *Mollisiaceae* based on the phylogenetic reconstruction of a 15-gene dataset. It should be noted that consensus remains unclear about the systematic position of several mollisioid genera, including *Mollisia* and *Phialocephala* (Tanney & Seifert 2020) (D. Haelewaters).

#### ***Phialophora* Medlar**

This genus historically included a heterogeneous assemblage of phialidic dematiaceous hyphomycetes usually with poorly developed conidiophores, producing phialides with conspicuous collarettes. It comprised members of several families, orders and classes of ascomycetes (Gams 2000). The current concept of the genus, however, only includes phialidic members of *Herpotrichiellaceae* with or without a yeast phase in culture (Li et al. 2017) (H. Madrid).

***Phragmonaevia*** Rehm

Kirk et al. (2008) regarded this name as doubtful, but Baral (2016) listed it among *Helotiales* genera *incertae sedis*. No sequences are currently available for any member of this genus (N. Wijayawardene).

***Phragmothyrites*** W.N. Edwards (fossil)

*Microthallites* Dilcher is a later taxonomic synonym of *Phragmothyrites* (R.K. Saxena).

***Phyllopsora*** Müll. Arg.

Kistenich et al. (2018) regarded that *Crocynia* (Ach.) A. Massal. as a synonym of this genus (E. Timdal).

***Piricauda*** Bubák

Da Silva et al. (2016) showed that *Piricauda paraguayensis* could be accommodated in *Mycosphaerellaceae*. However, it should be pointed out that *Piricauda paraguayensis* is not the type species, thus, we tentatively keep this genus in *Mycosphaerellaceae* (N. Wijayawardene, S. Hongsanan & R. Phookamsak).

***Picoa*** Vittad.

The genus *Phaeangium* Pat. Has been regarded as a synonym of *Picoa*, as discussed in Zitouni-Haouar et al. (2015) (P. Alvarado).

***Pilatotrampa*** Zmitr.

Zmitrovich (2018) introduced this new monotypic genus in *Polyporaceae* to accommodate *Trametes ljubarskyi* Pilát. (V. Papp).

***Placocrea*** Syd.

Boonmee et al. (2017) treated this genus as a member in *Teratosphaeriaceae* (S. Boonmee).

***Plagiosphaera*** Petr.

Voglmayr in Song et al. (2019) demonstrated that the taxon *P. immersa* Petr. belongs to the family *Magnaporthaceae* (*Magnaporthales*) based on a multi-locus phylogenetic study of ITS-LSU-rpb1-tef1 DNA sequence analyses. The other members of the genus are listed as *Sordariomycetes incertae sedis* (Huhndorf et al. 2004, Index Fungorum 2019) (D. Haelewaters).

***Pleuromyces*** Dima, P.-A. Moreau & V. Papp

Crous et al. (2018) introduced this monotypic genus to accommodate the new species *P. hungaricus* V. Papp, Dima & P.-A. Moreau, and accepted it as a genus in *Tubariaceae* based on phylogenetic analyses (V. Papp).

***Plicariella*** (Sacc.) Rehm

See under *Pachyphlodes* Zobel (P. Alvarado).

***Pluricellaesporites*** Hammen (fossil)

*Piriurella* Cookson & Eisenack is a later taxonomic synonym of *Pluricellaesporites* Hammen (R.K. Saxena).

***Polycellaesporonites*** Anil Chandra et al. (fossil)

Capsular, muriform fungal spores with a hilum, and distally with an elongated, knob-like or beaked, extension as that in the modern *Alternaria* (R.K. Saxena).

***Polycephalomyces*** Kobayasi

After segregation of the genus *Perennicordyceps* (Matočec et al. 2014) and the description of several new species in the genus, *Polycephalomyces* currently includes 18 species (Xiao et al. 2018) (D. Haelewaters).

***Prathoda*** Subram.

Simmons (2007) resurrected *Prathoda* which is distinct from *Alternaria* (Pleosporaceae). In MycoBank and Species Fungorum, *Prathoda* is mentioned as a synonym of *Alternaria*, but its molecular phylogeny has not been recovered and closest relationship with *Alternaria* has not been settled. Therefore we left *Prathoda* as a separate genus (P.B. Gannibal).

***Proliferophorum*** Wang et al.

Phookamsak et al. (2019) introduced a monotypic genus *Proliferophorum* to accommodate hyphomycetous species, *P. thailandicum* G.N. Wang et al. in Diaporthomycetidae based on phylogenetic analysis. The genus is characterized by having mononematous, caespitose conidiophores, polyblastic, terminal, sympodial, pale brown or subhyaline, with minute, truncate conidiogenous cells, sometimes percurrently proliferating 1–2 times at broken ends of conidiogenous cells and fusiform to cylindrical, pigmented, septate conidia. The genus was collected from decaying submerged wood in Thailand (R. Phookamsak).

***Protofenestella*** Jaklitsch & Voglmayr

Jaklitsch et al. (2018) proposed this new genus in the Cucurbitariaceae based on morphological and molecular characters (S. Fryar).

***Protothelenellaceae*** Vezda et al.

Kraichak et al. (2018a) regarded that *Thrombiaceae* Poelt & Vezda ex J.C. David & D. Hawksw. as a synonym of *Protothelenellaceae*. Further, the family has been transferred to *Baeomycetales* from *Ostropales* (N. Wijayawardene).

***Pseudaegerita*** J.L. Crane & Schokn.

This aero-aquatic hyphomycete genus was shown to be a member of *Hyaloscyphaceae* based on morphology of the associated sexual state (Abdullah et al. 2005) and DNA sequence data (Johnston et al. 2019, Vu et al. 2019) (H. Madrid).

***Pseudoanungitea*** Crous

Crous et al. (2018) introduced this new genus in *Venturiaceae* (S. Fryar).

***Pseudoastrophaeriellopsis*** Devadatha et al.

Phookamsak et al. (2019) introduced *Pseudoastrophaeriellopsis* as a monotypic genus in *Pseudoastrophaeriellaceae* to accommodate trematosphaeria-like taxon. The genus is typified by *Pseudoastrophaeriellopsis kaveriana* Devadatha et al. collected from decaying wood of *Avicennia marina* (Forssk.) Vierh. and *Suaeda monoica* Forssk. ex J.F.Gmel. in India. Based on multi-gene phylogenetic analyses, *Pseudoastrophaeriellopsis* formed a distinct lineage basal to *Pseudoastrophaeriella* (R. Phookamsak).

***Pseudobambusicola*** Hern.-Restr. & Crous

This new genus was placed in *Sulcatisporaceae* using multi-gene phylogenetics and morphological characters by Rucpic et al. (2018). It is closely related to *Neobambusicola* but differs in having cylindrical-necked conidiomata surrounded by dark brown, smooth to slightly verruculose hyphae (Rucpic et al. 2018) (S. Fryar & S. Somrithipol).

***Pseudofusicoccum*** Mohali

Yang et al. (2017) considered that this genus warrants a separate family and thus introduced *Pseudofusicoccumaceae* to accommodate it. Phillips et al. (2019) took into account phylogeny

(ITS, LSU), morphology and evolutionary divergence times and concluded that *Pseudofusicoccum* resides within *Phyllostictaceae*. Hence, Phillips et al. (2019) synonymised *Pseudofusicoccumaceae* under *Phyllostictaceae* (A.J.L. Phillips).

#### ***Pseudographis* Nyl.**

Based on the phylogenetic analysis of a three-gene dataset (ITS, LSU, mtSSU), Karakehian et al. (2019) placed *Pseudographis* in *Rhytismataceae*, not *Triblidiaceae*. Because of the inclusion of *Pseudographis* in the family, the authors expanded the morphological description of *Rhytismataceae* to include “ascospore cell walls that produce a strong blue/purple reaction in iodine-based reagents” (D. Haelewaters).

#### ***Pseudogymnoascus* Raillo**

In Johnston et al.’s (2019) 15-gene tree, *Pseudogymnoascus* was strongly supported as sister genus to *Leuconeurospora* within *Pseudeurotiaceae*, *Thelebolales*. In a genomic-scale tree based on 3156 single-copy genes, *Pseudogymnoascus destructans* was sister to *Thelebolus microsporus*, confirming its position in the order *Thelebolales* (Johnston et al. 2019) (D. Haelewaters).

#### ***Pseudolanzia* Baral & G. Marson**

Introduced to accommodate a species that bears morphological similarities to *Lanzia* but is phylogenetically distinct. It is placed on a long branch within *Rutstroemiaceae* based on an ITS+LSU phylogeny (Baral 2019) (D. Haelewaters).

#### ***Pseudomelanconidaceae* C.M. Tian & X.L. Fan**

The asexual morph of the family *Pseudomelanconidaceae* is somewhat similar to members of *Melanconiellaceae*, and *Juglanconidaceae*. However, phylogenetic inferences resolved this family as an individual group with well-supported group from other families of *Diaporthales* (Fan et al. 2018a) (S.S.N. Maharachchikumbura & S. Fryar).

#### ***Pseudomelanconis* C.M. Tian & X.L. Fan**

*Pseudomelanconis caryae* is the type species of new genus *Pseudomelanconis*, and only occurs on *Carya cathayensis* in China (Fan et al. 2018a) (S.S.N. Maharachchikumbura).

#### ***Pseudoneoconiothyrium* Wanas. et al.**

Wanasinghe et al. (2018) introduced a monotypic genus to accommodate neoconiothyrium-like species in *Thyridariaceae*. However, Phookamsak et al. (2019) accommodated the genus in *Roussoellaceae* based on multi-gene analyses and this concurred with Jiang et al. (2019a) and Karunarathna et al. (2019) (R. Phookamsak).

#### ***Pseudoophiobolus* Phook. et al.**

Phookamsak et al. (2017) introduced *Pseudoophiobolus* to accommodate ophiobolus-like species in *Phaeosphaeriaceae* based on multi-gene phylogenetic analyses including *P. achilleae*, *P. erythrosporus*, *P. galii*, *P. italicus*, *P. mathieui*, *P. rosae*, *P. subhyalinisporus* and *P. urticicola* (R. Phookamsak).

#### ***Pseudopaucispora* A. Hashim.**

Hashimoto et al. (2018) introduced this monotypic genus in *Lophiostomataceae* based on molecular and morphological characters (S. Fryar).

#### ***Ramalinaceae* C. Agardh**

The taxonomy of family *Ramalinaceae* was recently revised by Kistenich et al. (2018). According to phylogenetic analysis genera *Adelolecia*, *Catinaria*, *Compsocladium*, *Crustospathula*, *Frutidella*, *Japewia*, *Schadonia*, *Tasmidella* do not belong this family (A. Suija).

**Ramasricellites** Kalgutkar & Janson. (fossil)

Kalgutkar & Jansonius (2000) opined that *Multicellaesporites differentialis* Ramanujam & Srisailam is a misfit in *Multicellaesporites* and therefore they proposed *Ramasricellites* to accommodate it. The sharp differentiation between the dark, broad central cells and the narrower, elongate hyaline terminal cells, as well as the lack of constriction at the median septum, differentiate this form from species in *Multicellites* (R.K. Saxena).

**Ramomarthamyces** P.R. Johnst.

*Marthamyces* was found to be polyphyletic and therefore Johnston & Park (2019) described *Ramomarthamyces* within *Marthamycetaceae* (*Marthamycetales*) for species separated from *Marthamyces sensu stricto*. The four species in *Ramomarthamyces* have distinctly branched rather than proloid paraphyses (D. Haelewaters).

**Ramophialophora** M. Caldusch et al.

This genus is polyphyletic within *Sordariales* (Zhang et al. 2017), but its type species, *R. vesiculosa* is clearly phylogenetically placed in *Lasiosphaeriaceae* (Madrid et al. 2010) (H. Madrid)

**Ranadivia** Zmitr.

Zmitrovich (2018) introduced this new genus in *Fomitopsidaceae* to accommodate *Daedalea allantoidea* M.L. Han, B.K. Cui & Y.C. Dai, *D. africana* I. Johans. & Ryvarde, *D. stereoides* Fr., and *Polyporus modestus* Kunze ex Fr. Based on a multi-gene phylogeny, Han et al. (2016) accepted these species in the genus *Daedalea* Pers. (V. Papp).

**Ratnagiriathyrites** R.K. Saxena & N.K. Misra (fossil)

This monotypic genus is characterized by its non-radiating, hexagonal porate cells (R.K. Saxena).

**Remersonia** Samson & Seifert

Wang et al. (2018) showed that the genus belongs in the *Chaetomiaceae* (K. Bensch).

**Requienellaceae** Boise

This family was introduced by Boise (1986) in the class *Dothideomycetes* (as *Loculoascomycetes*) and she kept the family in *Melanommatales* (sensu Barr 1983) or *Pyrenulales* (sensu Eriksson 1984). However, *Requienellaceae* was not treated as a distinguished family by Hawksworth & Eriksson (1986), who maintained it under *Pyrenulaceae*. Barr (1990) and Aptroot (1991) accepted *Requienellaceae* as a family of *Melanommatales* and again Kirk et al. (2008) as a family of the *Pyrenulales*. Based on the sequence data, Jaklitsch et al. (2016b) reinstated *Requienellaceae* as a family of *Xylariales* (S.S.N. Maharachchikumbura).

**Resiniporus** Zmitr.

Zmitrovich (2018) introduced this new genus in *Irpicaceae* to accommodate *Ceriporiopsis resinascens* (Romell) Domański and *C. pseudogilvescens* (Pilát) Niemelä & Kinnunen (V. Papp).

**Resinogalea** Rikkinen & A.R. Schmidt

Rikkinen et al. (2016) proposed *Resinogalea* for *Resinogalea humboldtensis* collected from resin of *Araucaria humboldtensis* in New Caledonia (S. Somrithipol).

**Retihelicosporonites** Ramanujam & K.P. Rao (fossil)

Helical spores (conidia) are found in various hyphomycetes, viz. *Helicoma* Corda, *Helicomina* L.S. Olive, *Helicoon* Morgan, *Helicodendron* Peyronel, *Xenosporella* Höhn, *Hiospira* R.T. Moore, etc. (Barnett 1956, Ellis 1971, Ainsworth et al. 1973) (R.K. Saxena).

***Retroconis*** de Hoog & Bat. Vegte

This genus belongs in *Chaetomiaceae*, *Sordariales* according to Crous et al. (2007) (H. Madrid).

***Rhamphoria*** Niessl

*Ramphoria* is the type genus of the newly erected family *Rhamphoriaceae* (Réblová & Štěpánek (2018) (K. Bensch).

***Rhamphoriaceae*** Réblová

*Rhamphoriaceae* is a novel family introduced by Réblová & Štěpánek (2018) to represent genera *Rhamphoria*, *Rhamphoriopsis*, *Linkosia* and *Xylolentia* (S.S.N. Maharachchikumbura).

***Rhamphoriopsis*** Réblová & Gardiennet

Genus in the *Rhamphoriaceae* with *Rhamphoriopsis muriformis* as the type species (Réblová & Štěpánek 2018) (S.S.N. Maharachchikumbura).

***Rhexoacrodictys*** W.A. Baker & Morgan-Jones

Xia et al. (2017) treated this genus as a member in *Savoryellales*, *Savoryellaceae*. (J. Ma)

***Rhodoveronaea*** Arzanlou, W. Gams & Crous

Réblová & Štěpánek (2108) referred this genus to the newly erected family *Rhamphoriaceae* (K. Bensch).

***Rhizoglofus*** Sieverd. et al.

The genus *Rhizophagus* was not accepted in the Fungal Kingdom, as *Rhizophagus populinus* is not an arbuscular mycorrhizal fungi but a plant root pathogen originally attributed to the *Peronosporales* (Sieverding et al. 2014) which at time is attributed to the kingdom *Chromista* (Cavalier-Smith 2018). *Glomus intraradices* became the type species of the new genus *Rhizoglofus* with several new species described using *Rhizoglofus* as generic name (Sudová et al. 2015, Błaszczowski et al. 2018a, b, 2019a. b, Turrini et al. 2018).

***Rimularia*** Nyl.

Four species were included in the phylogeny (Resl. et al. 2015), but 25 species still need molecular data for the correct genus placement (M. Kukwa).

***Roesleria*** Thüm. & Pass.

Baral (2016) maintained the family *Roesleriaceae* within his “Lineage B” (*Helotiaceae* sensu lato) to accommodate the genus *Roesleria* with its peculiar morphological characteristics. However, Johnston et al. (2019) found high support for the placement of this genus deep within the family *Helotiaceae* (D. Haelewaters).

***Roselymyces*** Fiuza et al.

The monotypic genus *Roselymyces* was erected in the *Xylariales* based on morphological characters and a molecular phylogeny based on ITS and LSU data by Fiuza et al. (2018) with *Roselymyces brasiliensis* as the type species. The genus was not yet associated to one of the families of *Xylariales*, but shows morphological affinities to *Cylindrium*, *Polyscytulum*, *Pseudoidriella* and *Tristratiperidium* (M. Stadler).

***Rostania*** Trevis.

According to Košuthová et al. (2019) the genus is not monophyletic and 2 species were transferred to *Leptogium* and *Scytinum*. At present 3 species are known to belong to the genus in its strict sense, but the species delimitation within *Rostania* needs further studies (M. Kukwa).

***Rutstroemiaceae*** Holst-Jensen et al.

The *Rutstroemiaceae* + *Sclerotiniaceae* clade was retrieved with high statistical support in the sclerotinioid clade of *Helotiales* in the 15-gene tree of Johnston et al. (2019). If *Sclerotiniaceae* is retained, *Rutstroemiaceae* as currently recognized is not monophyletic and would need to be split in four families. More multigene and genomic-scale work is needed to resolve this sclerotinioid clade. Ekanayaka et al. (2019) proposed that this family belongs to an informal clade named “*Sclerotiniales*”. However, this placement was without support (D. Haelewaters & N. Wijayawardene).

***Saccharomyces*** O.E. Erikss. & Winka.

In the case of *Saccharomyces* yeasts, the status of several families and the status and familial placement of several genera has not been unequivocally cleared (Daniel et al. 2014, Hittinger et al. 2015, Shen et al. 2016, 2018, Kurtzman & Boekhout 2017) since the publication of the 5th edition of *The Yeasts: A Taxonomic Study* (Kurtzman 2011). Based on accumulating phylogenomic data, the status of some families are expected to change substantially (e.g. Shen et al. 2018). Thus, a comprehensive list of currently accepted sexual genera and non-synonymized asexual genera (that are expected to be retained following the Melbourne code, notably *Candida* Berkhout) are listed among the notes with additional notes on expected changes and protected names, following Kurtzman & Boekhout (2017) (W.P. Pfliegler & E. Horváth).

***Saccisporonites*** Kalgutkar & Janson. (fossil)

Kalgutkar & Jansonius (2000) opined that *Lacrimasporonites stoughiae* Elsik is a misfit in *Lacrimasporonites* Elsik and therefore they proposed *Saccisporonites* to accommodate it (R.K. Saxena).

***Sakireeta*** Subram. & K. Ramakr.

Based on ITS and LSU sequence phylogeny, Crous et al. (2015a) transferred *Sakireeta* to *Botryosphaeriaceae* (A.J.L. Phillips).

***Saprochaete*** Coker & Shanor ex D.T.S. Wagner & Dawes

Expected transfer of species to *Magnusiomyces* Zender (Kurtzman & Boekhout 2017) (W.P. Pfliegler and E. Horváth).

***Sarcoleotia*** S. Ito & S. Imai

Phylogeny in Hustad et al. (2011) demonstrates that *Sarcoleotia* is sister species to *Nothomitra*, both in a separate clade than the rest of *Geoglossomycetes* (V.P. Hustad).

***Sarcopeziza*** Loizides et al.

This genus was recently introduced by Agnello et al. (2018) (P. Alvarado).

***Sardiniella*** Linaldeddu et al.

This genus was introduced by Linaldeddu et al. (2016) to accommodate a diplodia-like species from diseased *Celtis africana* trees in Sardinia. Morphologically similar to *Diplodia* and *Dothiorella*, but phylogenetically distinct (A.J.L. Phillips).

***Saxophila*** Selbmann & de Hoog



This is a monotypic genus, typified by *S. tyrrhenica*, a dematiaceous microcolonial fungus obtained from marble and limestone in Europe. Its placement in *Extremaceae* is supported by multilocus DNA sequence data (Isola et al. 2016) (H. Madrid).

***Schadonia*** Körb.

Kistenich et al. (2018) transferred this genus from *Ramalinaceae* to *Pilocarpaceae* (E. Timdal).

***Sclerencoelia*** Pärtel & Baral

This genus was introduced by Pärtel et al. (2017) to accommodate two species of *Encoelia* (*E. fascicularis* and *E. pruinosa*) that belonged to *Sclerotiniaceae*, whereas the type species *E. furfuraceae* was placed in *Cenangiaceae*. A third species of *Sclerencoelia* was also described by Pärtel et al. (2017) mostly based molecular data (D. Haelewaters).

***Sclerococcum*** Fr.

Réblová et al. (2016) transferred it to *Sclerococcaceae* and this was supported by Yu et al. (2018). However, *Sclerococcum* has been transferred to *Dactylosporaceae* Bellem. & Hafellner [= *Sclerococcaceae* Réblová, Unter. & W. Gams] by Diederich et al. (2018) (H. Zhang & J. Etayo).

***Scolecachnum*** Guatimosim et al.

*Scolecachnum* was introduced in *Hyaloscyphaceae* (Guatimosim et al. 2016). Based on both ITS and LSU phylogenetic analyses, it is retrieved as sister to *Hyphodiscus* in *Hyaloscyphaceae* Han Clade 4 (sensu Han et al. 2014, Johnston et al. 2019) (D. Haelewaters).

***Scutula*** Tul.

Kistenich et al. (2018) transferred this genus from *Pilocarpaceae* to *Ramalinaceae* (E. Timdal).

***Seltsamia*** Jaklitsch & Voglmayr

Jaklitsch et al. (2018) proposed this new genus in *Cucurbitariaceae* based on morphological and molecular characters (S. Fryar).

***Septomelanconiella*** Samarak. & K.D. Hyde

Phookamsak et al. (2019) introduced a monotypic genus *Septomelanconiella* to accommodate a single species *S. thailandica* Samarak. & K.D. Hyde. *Septomelanconiella* can be distinguished from *Melanconiella* Sacc. in having finely verrucose brown mature conidia. Phylogenetic analysis revealed that the genus formed a distinct lineage with other genera in *Melanconiellaceae* (R. Phookamsak).

***Septoriella*** Oudem.

Crous et al. (2015c) treated *Wojnowicia* as a synonym of *Septoriella* based on a neotypic study of *Wojnowicia hirta* Sacc. (R. Phookamsak).

***Septorioides*** Quaedvl. et al.

This genus was introduced for species morphologically similar to *Septoria* but distinguishable on account of conidiomata that open by an irregular split, and paraphyses intermingled with the conidiogenous cells. Furthermore, they constitute a phylogenetic lineage in *Botryosphaeriaceae* and thus separate from *Septoria* and allied genera (Quaedvlieg et al. 2013). Wyka & Broders (2016) introduced the family *Septorioideaceae* in *Botryosphaeriales* to accommodate *Septorioides* species. Phillips et al. (2019) took into account phylogeny (ITS, LSU), morphology and evolutionary divergence times and concluded that *Septorioides* resides within

*Saccharataceae*. For this reason, Phillips et al. (2019) regarded *Septorioideaceae* as a synonym of *Saccharataceae* (A.J.L. Phillips).

***Sepultariella*** Van Vooren et al.

This genus was erected to accommodate two species previously ascribed to *Leucoscypha*. It represents a separate phylogenetic lineage within *Pyrenomataceae* (Van Vooren et al. 2017) (I. Kušan & N. Matočec).

***Sheathospora*** X.L. Fan

Fan et al. (2018b) proposed this new genus based on unique pycnidial conidiomata and conidia with distinct hyaline sheath in *Melanconiellaceae*. *Sheathospora cornuta* is the type to accommodate *Melanconiella cornuta* and currently so far known from *Cornus controversa* and *Juglans regia* in China (X.L. Fan).

***Snippocia*** Ertz et al.

Ertz et al. (2018) introduced this genus and placed it in *Arthoniaceae* based on phylogenetic analyses (N. Wijayawardene).

***Solanella*** Vaňha

Ekanayaka et al. (2018) proposed that this genus should be transferred to *Pezizomycotina incertae sedis* (I. Kušan & N. Matočec).

***Solicorynespora*** R.F. Castañeda & W.B. Kendr.

Hernández-Restrepo et al. (2014) showed that *Solicorynespora insolita* has a high affinity with members of *Dothideomycetes*, and more specifically with *Astrosphaeriella livistoncola* (J. Ma)

***Spadicoides*** S. Hughes

Réblová et al. (2018) accommodated this genus in *Xenospadicoidaceae* based on phylogenetic analyses (S. Fryar).

***Spegazzinia*** Sacc.

This genus was shown to belong in *Didymosphaeriaceae* by Tanaka et al. (2015) (P. Alvarado).

***Sphaerosporium*** Schwein.

According to a multilocus phylogenetic study in Song et al. (2019), the generic type, *S. lignatile* Schwein., belongs to *Pyronemataceae* (*Pezizomycetes*, *Pezizales*), whereas *S. equinum* (Desm.) J.L. Crane & Schokn. was placed among *Onygenales* based on LSU sequence data (Rokas et al. 2012) (D. Haelewaters).

***Sphaerosporium*** Schwein.

According to a multilocus phylogenetic study by Haelewaters et al. in Song et al. (2019), the generic type, *S. lignatile* Schwein., belongs to *Pyronemataceae* (*Pezizomycetes*, *Pezizales*), whereas *S. equinum* (Desm.) J.L. Crane & Schokn. was placed among *Onygenales* based on LSU sequence data (Rokas et al. 2012) (D. Haelewaters).

***Spinosporonites*** R.K. Saxena & S. Khare (fossil)

This monotypic genus includes circular to subcircular, inaperturate, multicellular spores, each cell giving rise to a robustly built spine. They readily resemble the setose pycnidia found in some Coelomycetes (R.K. Saxena).

***Spiromastigaceae*** Hirooka et al.

The family was first invalidly published in Rizzo et al (2014) (Arts 38.11 and 42.1) and later validated in Hirooka et al. (2015) (K. Bensch).

***Spirotremesporites*** Dueñas (fossil)

This genus includes ellipsoidal to elongate, aseptate, psilate fungal spores having aperture in the form of a single furrow at an angle to the axis of the spore, straight or curved to S-shaped or sigmoidal in outline, or spiral around the spore axis. *Varisulcosporites* Rouse & Mustard is a junior taxonomic synonym of *Spirotremesporites* (R.K. Saxena).

***Sporacestra*** A. Massal.

Kistenich et al. (2018) resurrected this genus in *Ramalinaceae* (E. Timdal).

***Sporastatiales*** Lumbsch & Leavitt

Kraichak et al. (2018a) raised *Sporastatiaceae* to ordinal level as *Sporastatiales* (N. Wijayawardene).

***Sporocadaceae*** Corda

Liu et al. (2019) provided a revision of the *Sporocadaceae* based on multi-locus phylogenetic analyses, using LSU, ITS, *tef-1 $\alpha$* , *tub2* and *rpb2* loci, in combination with morphological data. A total of 30 well-supported monophyletic clades were recognized, representing 23 known and seven new genera. Typifications for the type species (*Diploceras*, *Discosia*, *Monochaetia*, *Sporocadus* and *Truncatella*) and emendations of various genera and species were also provided (M. Stadler).

***Sporocarpon*** Will. (fossil)

*Dubiocarpon* S.A. Hutch. and *Oidospora* Will. are later taxonomic synonyms of *Sporocarpon* Will. (R.K. Saxena).

***Sporormiella*** Ellis & Everh.

The ostiolate *Sporormiella* has been recognized as a probable synonym of the earlier non-ostiolate *Preussia* for several decades and, based on morphology and phylogeny, Zhang et al. (2012) and Hyde et al. (2013) adopted *Preussia*. However, the type species *S. nigropurpurea* has not been sequenced, and *Sporormiella* is widely used in the literature of coprophilous fungi (e.g. Doveri 2004, Bell 2005) and palaeoecology (Raper & Bush 2009, Raczka et al. 2016) and contains many more species. If the genera are eventually proved to be congeneric molecularly, we consider that *Sporormiella* should be proposed for conservation over *Preussia* so both names are currently retained here (D.L. Hawksworth & N.N. Wijayawardene).

***Staphlosporonites*** Sheffy & Dilcher (fossil)

*Transeptaesporites* V.S. Ediger is a later taxonomic synonym of *Staphlosporonites* (R.K. Saxena).

***Steinera*** Zahlbr.

The genus, previously placed in *Koerberiaceae*, has been recently moved into *Arctomiaceae* (Ertz et al. 2017a). A new genus, *Henssenia*, was established for *Steinera* species remaining in *Koerberiaceae* (Ertz et al. 2017a) (M. Kukwa).

***Stemphylium*** Wallr.

The major part of the family *Pleosporaceae* is represented by species of *Pleospora*, a genus that is considered paraphyletic (Kodsueb et al. 2006, Inderbitzin et al. 2009). The type species of *Pleospora*, *P. herbarum*, was synonymized with *Stemphylium herbarum*. At this time, however,

several hundreds of *Pleospora* epithets still have not been assigned to *Stemphylium* or other genera and are not included in this outline (P.B. Gannibal).

***Stereophlebia*** Zmitr.

Zmitrovich (2018) segregated this new monotypic genus from *Lilaceophlebia* (Parmasto) Spirin & Zmitr. to accommodate *Phlebia tuberculata* (Berk. & M.A. Curtis) Tura, Zmitr., Wasser & Spirinski (V. Papp).

***Stictographaceae*** D.Q. Dai & K.D. Hyde

Dai et al. (2018) introduced this family in *Asterinales* to accommodate *Stictographa* Mudd, *Karschia* Körb., *Labrocarpon* Etayo & Pérez-Ortega and *Melaspileopsis* (Müll. Arg.) Ertz & Diederich (N. Wijayawardene).

***Stigmatodiscus*** Voglmayr & Jaklitsch

Voglmayr & Pintos (2018) synonymised *Asterodiscus* Voglmayr et al. with *Stigmatodiscus* (P. Alvarado).

***Striadiporites*** C.P. Varma & Rawat (fossil)

This genus includes unicellular, diporate fungal spores with striated spore wall. *Stridiporosporites* Ke & Shi is a junior taxonomic synonym of *Striadiporites* (R.K. Saxena).

***Symbiotaphrina*** Kühlw. & Jurzitza ex W. Gams & Arx

Baral et al. (2017) validated the order *Symbiotaphrinales* and introduced the new family *Symbiotaphrinaceae* (K. Bensch).

***Symmetrospora*** Q.M. Wang et al.

*Symmetrospora* was recently introduced for species previously placed in the asexual genera *Sporobolomyces* and *Rhodotorula* in the “*gracilis/marina* clade” of *Cystobasidiomycetes* (Wang et al. 2015b). Haelewaters et al. (2020) recently proposed three new species and a new combination, making 10 recognized species (D. Haelewaters).

***Synnemaspora*** X.L. Fan & J.D.P. Bezerra

*Synnemaspora* was introduced by Fan et al. (2018a) to accommodate fungi with synnematosous conidiomata. This genus is typified by *Synnemaspora toxicodendri* (S.S.N. Maharachchikumbura).

***Synnemasporaceae*** X.L. Fan & J.D.P. Bezerra

Fan et al. (2018a) proposed this new family to accommodate one new genus, *Synnemaspora* (Type species: *Synnemaspora toxicodendri*). The new genus and species have been collected from *Toxicodendron sylvestre* in China, and *S. aculeans* was transferred from *Cryptodiaporthe aculeans* (basionym: *Sphaeria aculeans*) (S. Fryar & S. Somrithipol).

***Szczepkamyces*** Zmitr.

Zmitrovich (2018) introduced this new monotypic genus in *Polyporaceae* to accommodate *Dichomitus campestris* (Quél.) Domański & Orlicz (V. Papp).

***Taeniolella*** S. Hughes

Heuchert et al. (2018) showed that the genus is polyphyletic with type species belonging *Kirschsteinioteliaceae* (*Dothideomycetes*) while saprobic species cluster within *Sordariomycetes* in different families. Lichenicolous species form a monophyletic clade within *Asterotexiales*, *Dothideomycetes* but many species are still not sequenced (A. Suija).

***Taitaia*** Suija et al.

Suija et al. (2018) introduced this lichenicolous genus and confirmed its placement in *Gomphillaceae*, *Graphidales* (N. Wijayawardene).

***Tamsiniella*** S.W. Wong et al.

Phookamsak et al. (2019) treated *Tamsiniella* in *Phyllachoraceae* based on phylogenetic analysis (R. Phookamsak).

***Tapesia*** (Pers.) Fuckel

*Tapesia* is considered a synonym of *Mollisia* (Hawksworth & David 1989) but many species are still classified under *Tapesia* (Species Fungorum 2020, Tanney & Seifert 2020). As a result, *Tapesia* is included in this outline (D. Haelewaters).

***Tasmidella*** Kantvilas et al.

Kistenich et al. (2018) transferred this genus from *Ramalinaceae* to the *Lecanorales incertae sedis* (E. Timdal).

***Thalloidima*** A. Massal.

Kistenich et al. (2018) resurrected this genus in the *Ramalinaceae* (E. Timdal).

***Thecotheus*** Boud.

Placed in *Ascobolaceae*, *Pezizales*. This genus was treated by Kušan et al. (2015) who listed 23 known species, including the newly described *T. platyapiculatus* (I. Kušan & N. Matočec).

***Tenuitholiascaceae*** S.H. Jiang et al.

Jiang et al. (2020) introduced this family based on the new genus *Tenuitholiascus*, which resides in *Strigulales* (N. Wijayawardene).

***Thysanorea*** Arzanlou et al.

According to phylogenetic studies by Arzanlou et al. (2007) and Dong et al. (2018), this genus is a member of *Herpotrichiellaceae*. Dong et al. (2018) introduced the second species *Thysanorea aquatica* W. Dong, H. Zhang & K.D. Hyde. However, this species has been reported as a synonym with the type species *Thysanorea papuana* (Aptroot) Arzanlou, W. Gams & Crous (Wang et al. 2018) (H. Madrid & H. Zhang).

***Toninia*** A. Massal.

Kistenich et al. (2018) placed *Arthrosporium* A. Massal. as a synonym of *Toninia* (E. Timdal)

***Torrentispora*** K.D. Hyde et al.

Réblová et al. (2018) transferred *Torrentispora* from the *Annulatascaceae* to *Xenospadicoidaceae* based on multi-gene phylogenetic analyses (S. Fryar).

***Tremellochaete*** Raitv.

*Tremellochaete* was reinstated in *Auriculariaceae* by Malysheva & Spirin (2017) based on morphological characteristics and phylogenetic analyses. Phookamsak et al. (2019) updated a species number in this genus. Based on morphological characteristics and phylogenetic analysis, three species are accommodated in this genus (Malysheva & Spirin 2017, Index Fungorum 2019, Phookamsak et al. 2019) (R. Phookamsak).

***Triadelphia*** Shearer & J.L. Crane

Recent studies suggested that *Triadelphia* is polyphyletic, but no DNA sequence data is available for many of its members. The type species, *T. heterospora*, belongs in *Microascales* (Crous et al. 2015b) (H. Madrid).

#### ***Triblidiaceae* Rehm**

*Triblidiaceae* is considered a monophyletic family within *Rhytismatales*, including two genera, *Huangshania* and *Triblidium*. The previous order *Triblidiales* is synonymized under *Rhytismatales* (Karakehian et al. 2019) (D. Haelewaters).

#### ***Tribolites* W.H. Bradley (fossil)**

The fossil conidia resemble conidia of extant genera *Tetrachaetum* Ingold and *Lemonniera* D. Wild. *Trihyphaecites* Peppers is a junior taxonomic synonym of *Tribolites* (R.K. Saxena).

#### ***Trichomonascaceae* Kurtzman & Robnett**

Family status expected to change upon resolving *Blastobotrys/Trichomonascus* (W.P. Pfliegler and E. Horváth).

#### ***Trichomonascus* H.S. Jackson emend. Kurtzman & Robnett**

Expected transfer of species to *Blastobotrys* Klopotek to comply with the Melbourne Code (Kurtzman & Boekhout 2017) (W.P. Pfliegler & E. Horváth).

#### ***Trichothyrites* Rosend. (fossil)**

*Notothyrites* Cookson and *Sphaerialites* Venkatach. & R.K. Kar are later taxonomic synonyms of *Trichothyrites* (Kalgutkar & Jansonius 2000) (R.K. Saxena).

#### ***Trihyphites* Kalgutkar & Janson. (fossil)**

*Trihyphaecites fractus* Z.C. Song & Liu Cao, in Song et al. (1989) belongs to *Trihyphites*. (R.K. Saxena).

#### ***Triporicellaesporites* Ke & Shi (fossil)**

The spores of two species of *Triporicellaesporites*, viz. *T. elongatus* P. Ke & Z.Y. Shi and *T. simplex* (Elsik & Janson.) Kalgutkar & Janson., are very similar to spores of the extant *Ceratosporella bicornis* (Morgan) Höhnel. (R.K. Saxena).

#### ***Trullella* Zmitr.**

Zmitrovich (2018) treated that the name *Trulla* Miettinen & Ryvar den is illegitimate (non *Trulla* T.M. Harris), thus the new genus *Trullella* was proposed to accommodate *Trulla dentipora* (Ryvar den & Iturr.) Miettinen & Ryvar den and five other *Trulla* species (V. Papp).

#### ***Tubakiaceae* U. Braun et al.**

Braun et al. (2018) introduced *Tubakiaceae* (in *Diaporthales*) to accommodate *Tubakia* B. Sutton. and six other genera (viz. *Apiognomonioides* U. Braun, J.Z. Groenew. & Crous, *Involutscutellula* U. Braun & C. Nakash., *Paratubakia* U. Braun & C. Nakash., *Racheliella* Crous & U. Braun, *Saprothyrium* U. Braun, Crous & J.Z. Groenew., *Sphaerosporithyrium* U. Braun, Crous, O. Moreno-Rico & Marm.) (N. Wijayawardene).

#### ***Tylothallia* P. James & H. Kiliias**

Kistenich et al. (2018) transferred this genus from *Lecanoraceae* to *Ramalinaceae* (E. Timdal).

#### ***Umbilicaria* Hoffm.**

Davydov et al. (2017) revised the *Umbilicariaceae sensu stricto* and accepted eight subgenera in the genus *Umbilicaria*: viz. *Actinogyra* (type: *U. muehlenbergii*), subg. *Agyrophora* (type: *A. atropuina*), subg. *Floccularia* subg. nov. (type: *U. deusta*), subg. *Gyrophora* (type: *U. vellea*), subg. *Iwatakia* subg. nov. (type: *U. esculenta*), subg. *Lasallia* (type: *L. pustulata*), subg. *Umbilicaria* (type: *U. hyperborea*), and subg. *Umbilicariopsis* subg. nov. (type: *Umbilicaria polyrhiza*) (G. Rambold).

***Umthunziomyces*** Crous & M.J. Wingf.

*Umthunziomyces* was introduced for a septoria-like species that resides in *Planistromellaceae* (Crous et al. 2016) (A.J.L. Phillips).

***Uncinulites*** Pampal. (fossil)

*Graamspora* Sal.-Cheb. & Locq. is a later taxonomic synonym of *Uncinulites* (R.K. Saxena).

***Unguicularia*** Hohn.

Previously considered as a member of *Hyaloscyphaceae* (Baral 2016), but currently placed in *Helotiales* genera *incertae sedis* based on the ITS placement by Johnston et al. (2019). Additional sequence data are needed to resolve the placement of this genus (D. Haelewaters).

***Varicellaria*** Nyl.

In Kraichak et al. (2018b), the monotypic family *Varicellariaceae* was validated (K. Bensch).

***Varicosporellopsis*** Lechat & J. Fourn.

Lechat & Fournier (2016) described *Varicosporellopsis* and placed it in *Nectriaceae* (I. Kušan & N. Matočec).

***Varmasporites*** Kalgutkar & Janson. (fossil)

Kalgutkar & Jansonius (2000) opined that *Fusiformisporites tonakkalensis* Y.N.R. Varma & R.S. Patil is a misfit in *Fusiformisporites* Rouse and therefore they proposed *Varmasporites* to accommodate it (R.K. Saxena).

***Velebitea*** I. Kušan et al.

*Velebitea* was introduced in Phookamsak et al. (2019) to accommodate a single species, *Velebitea chrysoexta* I. Kušan, Matočec & Jadan in *Lachnaceae* based on molecular data. The genus was collected from decorticated branches and stump base of *Fagus sylvatica* L. (Fagaceae) in Croatia and is characterized by having apothecial ascomata, elongated cylindrical-deltoid asci, protruding above paraphyses at maturity, with in Lugol's solution apical apparatus moderately euamyloid, of *Calycina*-type and hyaline, elongated fusoid ascospores (R. Phookamsak).

***Vermiconidia*** Egid & Onofri

A multilocus phylogenetic study by Isola et al. (2016) placed all members of this genus in *Extremaceae* (H. Madrid).

***Vitreoporus*** Zmitr.

Zmitrovich (2018) introduced this new genus to accommodate *Gloeoporus dichrous* (Fr.) Bres., *G. africanus* P.E. Jung & Y.W. Lim, *G. citrinoalbus* Yuan Yuan & Jia J. Chen, and *G. orientalis* P.E. Jung & Y.W. Lim. However, phylogenetic analyses by Jung et al. (2018) revealed that these species belong to a monophyletic clade in *Gloeoporus sensu stricto* (V. Papp).

***Vittaliana*** Devadatha et al.

Devadatha et al. (2019) introduced this genus and showed that it is a member of *Phaeosphaeriaceae*. Its ascospores are similar to *Acericola* and *Vagicola* (S. Tibpromma).

***Wheelerophlyctis*** P.M Letcher et al.

Letcher et al. (2018) introduced this genus, which comprises two species. Phylogenetic analyses confirmed its placement in *Asterophlyctaceae* (P. Letcher).

***Xanthonectria*** Lechat et al.

Lechat et al. (2016b) described the monotypic genus *Xanthonectria* to accommodate *Nectria pseudopeziza* within *Bionectriaceae* (I. Kušan & N. Matočec).

***Xenodactylaria*** Crous

Crous et al. (2018) introduced this genus and showed that it has a distinct lineage in *Myrmecridiales*. As a result, the family *Myrmecridiaceae* was introduced (N. Wijayawardene).

***Xenospadicoidaceae*** Hern.-Restr et al.

Réblová et al. (2018) accepted *Calyptosphaeria*, *Lentomitella*, *Spadicoides* and *Torrentispora* as members of the *Xenospadicoidaceae*, *Xenospadicoidales*. Furthermore, Réblová et al. (2018) reduced *Xenospadicoides* and *Pseudodiplococcium* under *Spadicoides* and synonymised *Lentomitellaceae* with *Xenospadicoidaceae* based on a multi-gene phylogeny (J. Ma & S. Fryar).

***Xyladictyochaetaceae*** Crous & Hern.-Restr

Crous et al. (2018) introduced this family to accommodate the genus *Xyladictyochaeta* within the Xylariales (S. Fryar & K. Bensch).

***Xylolentia*** Réblová

*Xylolentia* is a newly introduced genus in the family *Rhamphoriaceae*, with the type species *Xylolentia brunneola* (Réblová & Štěpánek 2018) (S.S.N. Maharachchikumbura).

***Xylomyces*** Goos et al.

Nine species are currently reported within *Xylomyces*, but *Xylomyces chlamydosporus* Goos, R.D. Brooks & Lamore is the only species phylogenetically related to the *Jahnulales* (H. Raja).

***Zopfochytrium*** M.J. Powell et al.

Powell et al. (2018) introduced this genus and confirmed its placement in *Chytridiaceae* (P. Letcher).

***Zymochalara*** Guatimosim et al.

*Zymochalara* was introduced in *Helotiales* genera *incertae sedis* (Guatimosim et al. 2016) but in the ITS tree of Johnston et al. (2019) it was retrieved within *Pezizellaceae* (D. Haelewaters).

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